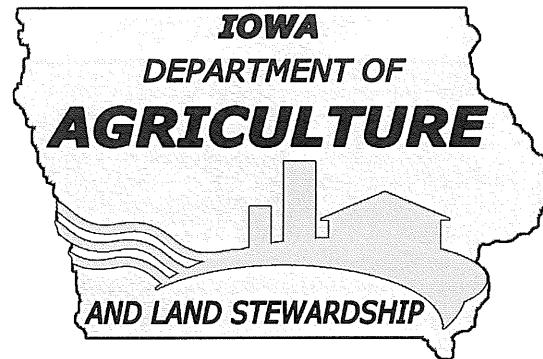


Iowa Department of Agriculture & Land Stewardship  
BILL NORTHEY, Secretary of Agriculture

STATE CLIMATOLOGIST OFFICE

# IOWA CLIMATE REVIEW

VOLUME 31, NUMBER 7  
JULY 2017



The cooperation of the National Weather Service offices at Davenport, Johnston (Des Moines), La Crosse, Sioux Falls and Valley (Omaha) and their network of volunteer weather observers across Iowa in providing the data used in compiling this report is gratefully acknowledged.

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The climatic data used in this report are compiled from official records on file at the State Climatologist Office in Johnston. Some of these data are of a preliminary nature and are subject to change without notice. Differences may exist in data values published here and those subsequently published in the U.S. Department of Commerce report *Climatological Data Iowa* due to use of differing quality control procedures.

## IOWA MONTHLY WEATHER SUMMARY – JULY 2017

General Summary. Iowa temperatures averaged 74.8° or 1.2° above normal while precipitation totaled 3.12 inches or 1.38 inches less than normal. This ranks as the 45<sup>th</sup> warmest and 50<sup>th</sup> driest July among 145 years of data. A warmer July was last recorded in 2012 and a drier one in 2013.

Temperatures. The most noteworthy aspect of July's temperatures was the hot weather centered upon the third week of the month. Ottumwa Airport reached 101° on the 20<sup>th</sup> while the Des Moines Airport matched that reading the next day. Higher temperatures were last recorded in Iowa on September 9, 2013 when Donnellson and Keokuk reached 102°. Very high humidity also prevailed with the heat index exceeding 110° over parts of the state on the 19<sup>th</sup>, 20<sup>th</sup> and 21<sup>st</sup>. The heat index (what the air 'feels like' when humidity is factored in) peaked at 117° at the Clarinda Airport on the 20<sup>th</sup> and at the Harlan Airport on the 21<sup>st</sup>. However, a higher heat index was recorded just one year ago when Shenandoah Airport reached 119° on July 21, 2016. On the other end of the spectrum Sheldon was the only location to see temperatures fall below fifty degrees during the month with a 46° minimum on the morning of the 1<sup>st</sup>. Osceola recorded 19 days with a maximum temperature of ninety degrees or higher. Meanwhile a few locations in northeastern Iowa, where much wetter weather prevailed, never reached 90° during the month.

Cooling Degree Day Totals. Home air conditioning requirements, as estimated by cooling degree day totals, averaged 21% greater than last July and 15% more than normal. Thus far this season air conditioning requirements are running the same as this time last year and 14% greater than normal.

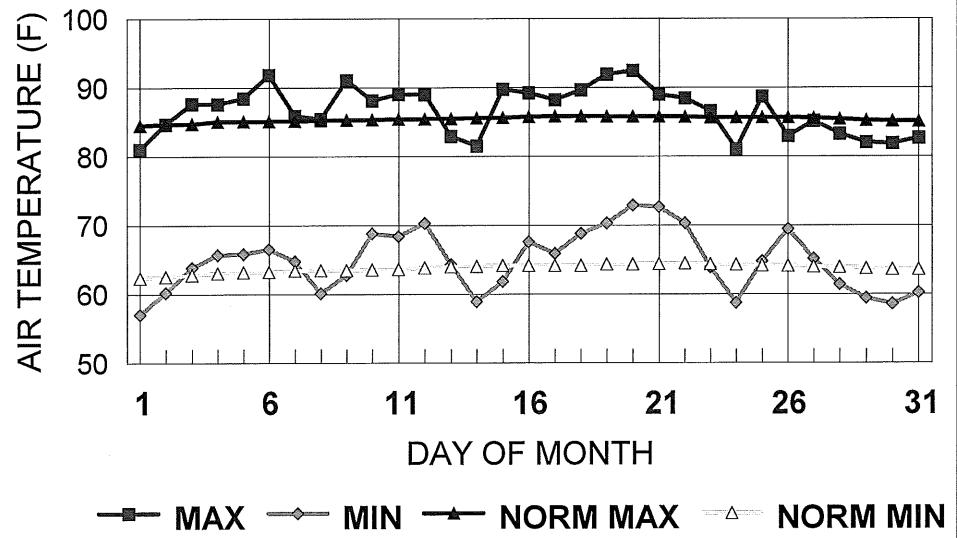
Precipitation. Rainfall was infrequent across most of the state during July. The exception was over parts of northeastern Iowa. Torrential rains fell over a small area centered upon southeast Clayton County on the night of July 11 with 6.35 inches falling at Garber and much higher amounts indicated by radar just to the south. A much larger area of very heavy rain occurred on the night of July 21 from Charles City southeastward toward Dubuque and then southward through the Quad Cities. Ionia in western Chickasaw County reported the most rain with 9.52 inches with this event. Several

inches of rain fell during the morning of the 21<sup>st</sup> and was followed by intense rain that evening and overnight. 5.93 inches of rain was recorded in a two hour period starting at 10:45 p.m. at an automated gage two miles west of Ionia on the Little Cedar River. Thanks to these two major events, and several smaller ones, Guttenberg recorded 13.88 inches of rain for the month. This was a new record high for any calendar month among 87 years of records at that location (old record 11.20 inches in July 2010). Fayette, with 12.78 inches of rain, registered their highest July total among 128 years of record (old record 11.60 in 2010). Meanwhile monthly rain totals were under one inch across large portions of northwest, central, south central and southeast Iowa. Lorimor reported the least rain during July with 0.24 inches. At the Ottumwa Airport their combined June and July rain total of 1.61 inches was the lowest for that two-month period since 1911.

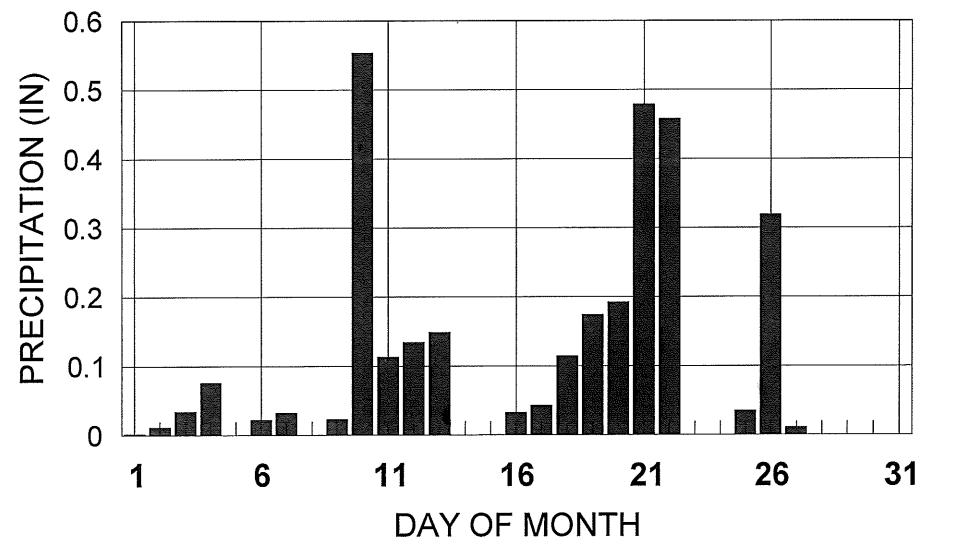
Drought. Precipitation across most of Iowa was near seasonal norms through April although there were areas of south central and southeastern Iowa that entered 2017 with deficient soil moisture levels owing to a very dry growing season in that portion of the state in 2016. A much drier weather pattern began in late May over most of the southwest two-thirds of Iowa, with the dryness intensifying through the summer. The U.S. Drought Monitor, as of July 25, depicted a zone of moderate drought extending diagonally across Iowa from the northwest to south central and southeast portions of the state. Within this area severe drought was indicated over parts of south central Iowa. Iowa/USDA Agricultural Statistics Service survey of conditions on July 30 showed the state's soybean rating has been worse in late July only three times since 1993 (2006, 2012 and 2013) with only 2012 with a substantially lower rating than 2017.

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## IOWA DAILY MAX & MIN TEMPERATURES JULY 2017 (SELECTED STATIONS)



## IOWA AVERAGE DAILY PRECIPITATION JULY 2017 (SELECTED STATIONS)



JULY 2017		IOWA CLIMATE REVIEW																															
AIRPORT		DAY OF MONTH																															
		PRELIMINARY AVERAGE DAILY DEW POINT TEMPERATURE																								AVG							
Ames	57	65	69	70	67	71	62	63	67	72	74	73	66	62	70	71	73	73	73	76	76	74	66	64	71	72	66	65	61	60	62	68.1	
Burlington	57	63	66	68	69	70	67	62	68	73	76	74	72	63	66	72	64	70	74	75	75	75	71	66	68	73	72	62	61	59	62	68.2	
Cedar Rapids	59	64	69	67	70	71	65	60	64	73	72	75	67	60	68	71	64	71	73	77	74	73	68	64	68	74	68	62	60	58	62	67.5	
Davenport																																	#####
Des Moines	55	63	68	68	67	69	61	62	67	71	73	72	65	61	67	70	72	71	71	73	74	74	64	62	68	71	65	62	57	56	57	66.3	
Dubuque	56	61	66	64	67	69	62	56	61	68	71	72	63	57	64	66	60	67	69	71	69	71	66	60	63	65	60	57	57	56	59	63.6	
Estherville																																	####
Iowa City																																	####
Lamoni	60	65	68	69	69	70	63	64	68	73	74	74	71	67	69	71	74	73	74	76	76	75	69	63	70	72	68	62	57	57	60	68.4	
Marshalltown	58	63	68	68	68	71	62	61	64	70	73	72	64	60	69	70	68	71	73	76	73	73	66	63	67	70	65	63	58	58	60	66.6	
Mason City	54	60	61	66	65	66	57	56	59	66	69	70	59	57	67	64	68	70	69	73	69	71	62	60	66	68	63	62	57	59	58	63.6	
Moline, IL	58	61	65	65	67	68	64	57	64	71	73	72	66	58	62	67	59	66	71	73	73	71	68	63	64	70	68	58	57	60	65.0		
Omaha, NE	59	64	68	67	66	69	61	64	68	70	72	69	69	67	70	70	69	72	73	72	72	74	65	63	70	71	65	64	62	59	59	67.2	
Ottumwa	55	63	66	67	67	68	62	60	66	72	74	74	68	61	65	70	69	69	72	73	74	74	66	63	65	72	67	59	56	56	59	66.2	
Sioux City	55	66	68	64	59	66	58	61	68	68	74	70	63	65	71	71	69	72	75	74	76	73	62	63	71	71	63	63	65	62	62	66.7	
Sioux Falls, SD	54	61	63	67	68	65	59	57	66	64	72	64	60	63	68	65	66	66	71	70	73	69	62	63	69	67	63	63	65	62	62	64.7	
Spencer																																	####
Waterloo	55	62	67	65	66	69	59	57	58	68	70	71	62	58	67	67	63	69	70	73	69	71	64	61	65	69	63	61	57	57	58	64.2	
		PRELIMINARY AVERAGE DAILY WIND SPEED (MPH)																									AVG						
Ames	7.6	7.7	3.4	5.3	2.6	9.0	12.1	5.0	6.9	10.2	6.6	7.3	7.9	3.8	7.0	7.0	8.3	7.4	8.3	7.2	6.2	7.9	9.8	5.7	10.7	5.9	8.0	3.9	3.2	2.5	2.6	6.7	
Burlington	7.2	5.2	4.8	5.0	5.3	4.9	9.3	5.2	7.4	10.8	8.5	8.7	5.3	7.7	3.6	9.0	5.9	6.1	4.8	7.1	9.9	8.9	7.5	7.1	6.6	4.8	7.3	10.4	7.4	4.3	3.7	6.8	
Cedar Rapids	8.8	7.4	4.7	5.8	3.7	6.8	11.0	4.9	6.5	8.9	6.6	8.4	8.2	7.2	4.6	7.6	7.4	6.2	5.8	7.7	8.1	5.8	9.9	7.0	8.4	6.4	8.2	7.0	6.3	3.1	2.6	6.8	
Davenport			7.9	5.9	3.7	6.6	10.4	5.5	8.0	9.4	5.8	8.6	7.5	6.1	3.5	8.7	6.0	5.9	5.5	8.9	8.1	5.6	8.9	6.7	7.5	5.9	8.3	9.1	6.2	2.3	2.8	6.7	
Des Moines	8.4	8.8	3.9	5.6	3.9	9.9	10.5	4.4	8.5	11.8	8.4	8.7	7.2	5.8	8.8	7.0	8.6	8.2	10.0	8.0	10.0	7.5	9.7	6.9	11.7	5.5	9.0	5.3	6.6	5.9	5.9	7.8	
Dubuque	9.2	8.9	6.2	5.8	5.1	7.4	11.6	5.5	7.5	6.6	6.8	9.5	9.8	7.3	6.5	7.1	5.3	8.4	6.1	8.1	9.6	5.1	10.4	6.8	9.5	8.0	8.9	5.8	1.4	2.7	7.2		
Estherville	7.9	7.2	7.4	6.9	7.4	8.9	10.0	6.2	10.7	8.8	7.3	6.6	8.7	3.7	8.8	6.2	10.5	7.4	8.7	7.6	8.4	6.9	9.6	6.3	12.5	6.6	6.8	5.1	5.3	5.4	4.0	7.5	
Iowa City	8.7	5.3	4.7	5.1	3.4	5.6	8.9	5.0	5.4	9.2	5.3	7.1	8.5	7.2	3.3	8.0	6.8	5.4	4.8	7.1	6.7	7.6	9.9	7.1	7.9	3.6	9.1	7.5	6.4	2.8	2.4	6.3	
Lamoni	8.1	7.5	5.2	5.1	4.2	8.5	10.1	5.6	8.6	12.1	9.5	10.2	4.7	4.2	5.8	8.7	5.2	7.6	9.0	8.8	11.0	8.4	8.4	5.0	7.7	4.8	9.2	5.3	4.9	2.9	5.0	7.1	
Marshalltown	7.7	9.5	3.2	7.1	2.6	8.4	11.4	4.1	6.4	9.0	8.1	7.8	7.6	5.4	7.2	7.4	10.1	6.9	8.4	7.3	9.1	6.7	10.4	6.9	12.7	5.9	7.7	4.5	4.2	3.7	3.7	7.1	
Mason City	10.3	9.8	8.1	9.0	6.9	10.3	13.8	4.7	7.8	7.2	6.3	6.6	8.6	9.7	5.2	9.0	6.6	11.2	7.7	10.0	6.9	9.5	6.6	11.1	6.5	13.2	5.5	6.5	4.9	3.2	2.4	3.8	7.8
Moline, IL	8.5	5.3	4.7	5.3	4.3	6.0	9.8	4.8	6.6	7.5	5.8	8.0	7.6	6.4	3.6	8.4	5.0	3.6	3.8	6.8	7.4	6.5	9.1	5.5	6.8	4.5	6.4	6.7	5.1	1.9	1.8	5.9	
Omaha, NE	5.3	6.5	4.6	6.9	3.2	7.4	7.6	4.5	11.0	8.1	11.9	8.0	3.8	4.8	8.2	6.1	10.6	8.6	15.2	8.1	11.7	9.1	6.3	8.1	16.1	6.9	7.6	4.7	7.5	8.1	5.1	7.8	
Ottumwa	8.3	7.6	6.1	6.2	5.1	6.9	11.7	6.1	7.9	11.4	9.1	9.2	6.8	6.5	5.3	10.3	7.8	7.1	6.5	8.1	10.4	10.5	10.8	6.8	8.0	8.2	8.0	5.6	6.1	7.9			
Sioux City	6.3	10.4	7.0	7.5	8.6	7.0	7.7	4.6	9.3	8.2	7.6	7.9	7.2	5.4	7.8	6.2	8.8	6.1	13.2	7.0	9.4	6.8	8.1	7.9	10.7	7.7	7.7	3.4	6.5	7.4	4.4	7.5	
Sioux Falls, SD	6.4	8.5	9.0	9.6	11.1	6.8	7.6	4.9	11.7	9.7	10.1	8.1	7.8	6.5	6.9	7.7	12.1	8.2	9.2	9.2	8.8	6.6	8.2	10.6	14.6	7.7	4.1	5.4	8.2	9.3	7.8	9.4	
Spencer	6.7	7.3	7.5	6.9	7.8	7.4	10.4	4.4	7.7	7.7	7.4	7.4	7.4	7.7	3.0	8.2	6.7	10.3	8.2	8.7	9.2	8.8	8.4	10.1	7.3	12.6	6.5	7.4	5.7	4.1	3.6	7.5	
Waterloo	8.0	9.8	5.8	7.3	3.9	9.2	11.4	3.5	6.4	8.0	6.1	8.0	8.2	5.5	7.3	7.4	9.7	8.0	7.5	7.2	9.8	5.8	8.9	6.3	12.4	6.3	8.0	4.0	3.3	3.3	3.8	7.1	
		PRELIMINARY MAXIMUM 5-SECOND WIND GUST (MPH)																									MAX						
Ames	27	27	16	29	12	25	29	15	25	35	20	32	24	14	20	29	18	20	26	35	23	21	25	16	25	21	22	13	15	16	12	35	
Burlington	24	23	15	29	55	17	45	17	20	49	45	41	19	18	13	24	16	18	15	20	23	35	22	18	17	34	20	23	17	14	13	55	
Cedar Rapids	29	28	17	18	37	19	26	16	22	39	22	38	22	24	13	23	17	31	19	39	32	27	29	17	21	16	19	24	19	14	12	39	
Davenport			36	14	19	18	27	21	18	39	20	31	18	18	14	23	14	45	28	60	38	37	29	17	17	37	20	22	18	10	10	60	
Des Moines	29	25	19	43	15	24	27	16	24																								

JULY 2017		MONTHLY SUMMARIZED STATION AND DIVISIONAL DATA																				IOWA CLIMATE REVIEW									
STATION		TEMPERATURE (F)																		PRECIPITATION (inches)											
		NUMBER OF DAYS						HEATING DEGREE DAYS						COOLING DEGREE DAYS						NUMBER OF DAYS				SNOWFALL (inches)							
		Avg	Avg	Dep	Ext	Ext		Max	Max	Min	Min		JUL	JUL	17-18	NORM	JUL	JUL	2017	NORM	SEAS	SEAS	Total	Dep	Ext		Max				
		Max	Min	Mean	Norm	Max	Day	Min	Day	90+	32-	32-	0-	2017	Norm	Seas	Seas	2017	Norm	Seas	Seas	Total	Norm	Day	Day	On					
NORTHWEST DIVISION																															
Akron																						0.73		0.55	26	5	1	0	0.0	0	
Cherokee	88.0	63.0	75.5	2.5	97	16	50	1	13	0	0	0	0	0	8	332	256	550	458	0.75	-3.17	0.43	26	4	3	0	0.0	0			
Emmetsburg	86.8	63.4	75.1	2.9	97	18	55	2	10	0	0	0	0	0	7	320	230	558	406	0.45	-4.06	0.17	10	5	2	0	0.0	0			
Estherville Airport	83.0	60.2	71.6	-0.2	92	17	49	14	1	0	0	0	1	1	9	215	219	389	392	0.49	-0.37	0.21	21	3	1	0	0.0	0			
Estherville 4 E	83.8	60.0	71.9	0.4	93	18	50	14	4	0	0	0	2	11	2	224	211	404	378	0.79	-3.35	0.34	22	5	2	0	0.0	0			
Everly 3 WNW																						0.62		0.44	22	3	2	0	0.0	0	
Hawarden	88.7	63.2	76.0	2.4	98	18	+50	1	11	0	0	0	0	0	7	350	273	592	482	1.98	-1.53	0.85	22	5	3	0	0.0	0			
Le Mars	87.6	62.6	75.1	1.6	96	16	51	1	8	0	0	0	0	0	5	319	269	563	495	1.50	-1.70	0.85	26	4	2	0	0.0	0			
Orange City																						1.80		0.88	1	5	3	0	0.0	0	
Pocahontas	86.9	63.2	75.1	1.8	95	16	53	31	9	0	0	0	0	0	5	319	262	587	495	0.41	-4.27	0.20	27	7	2	0	0.0	0			
Pringhar	87.8	64.9	76.4	2.3	95	17	53	1	14	0	0	0	0	0	5	360	285	668	538	1.51	-2.96	1.02	21	4	3	1	0.0	0			
Remsen #2																						1.67		0.60	4	5	5	0	0.0	0	
Rock Rapids	86.3	62.3	74.3	1.2	95	26	52	1	6	0	0	0	0	0	7	296	260	522	457	1.07	-2.62	0.55	18	5	3	0	0.0	0			
Rock Valley																						1.07		-2.57	0.50	22	5	3	0	0.0	0
Sanborn	84.5	63.3	73.9	1.6	92	18	51	1	5	0	0	0	1	1	9	285	234	501	413	0.60	-3.08	0.50	22	2	2	0	0.0	0			
Sheldon	84.4	60.7	72.6	1.4	91	18	46	1	7	0	0	0	3	14	14	245	206	436	361	0.62	-3.24	0.44	22	3	2	0	0.0	0			
Sibley	86.0	61.7	73.9	2.7	95	18	50	1	7	0	0	0	1	14	1	281	204	486	368	1.01	-2.17	0.43	22	6	3	0	0.0	0			
Sioux Center 2 SE	88.2	63.1	75.7	2.0	96	18	+50	1	14	0	0	0	0	0	5	340	273	618	537	1.28	-2.49	0.65	21	5	3	0	0.0	0			
Sioux Rapids 4 E	84.7	63.1	73.9	1.7	93	15	52	1	5	0	0	0	0	0	8	284	232	505	435	0.64	-3.11	0.48	26	3	2	0	0.0	0			
Spencer Airport	87.2	61.3	74.3	1.6	96	17	51	1	10	0	0	0	0	0	8	293	245	518	439	0.62	-0.49	0.21	21	3	1	0	0.0	0			
Spencer 1 N	85.8	62.3	74.1	1.4	95	17	52	1	8	0	0	0	0	0	8	288	245	523	439	1.21	-2.86	0.49	21	3	3	0	0.0	0			
Spirit Lake 4 W	84.3	63.7	74.0		94	15	51	1	5	0	0	0	0	0	0	287		519		1.01		0.42	21	6	3	0	0.0	0			
Storm Lake	86.3	64.4	75.4	2.6	96	16	54	2	10	0	0	0	0	0	6	326	249	573	460	1.52	-2.88	1.26	27	5	2	1	0.0	0			
NORTH CENTRAL DIVISION																															
Algona 3 W	84.2	61.3	72.8	1.2	92	7	55	25	5	0	0	0	0	9	0	9	246	215	461	386	1.47	-2.93	0.52	27	5	3	0	0.0	0		
Allison	82.7	62.4	72.6	-0.2	90	16	+54	15	2	0	0	0	0	5	0	5	241	248	447	449	1.96	-2.81	1.05	22	4	3	1	0.0	0		
Britt																						220		401							
Charles City	81.5	63.3	72.4	0.1	90	6	55	29	1	0	0	0	0	8	0	8	238	234	423	420	9.04	4.24	6.63	22	7	4	2	0.0	0		
Clarion	84.9	62.0	73.5	0.4	93	20	+55	31	5	0	0	0	0	6	0	6	267	255	504	478	1.08	-3.34	0.42	27	4	4	0	0.0	0		
Dakota City	85.3	62.7	74.0	1.5	94	16	55	30	6	0	0	0	0	6	0	6	287	237	514	406	0.93	-3.22	0.64	27	6	2	0	0.0	0		
Forest City 2 NNE	82.6	60.9	71.8	-0.4	91	7	53	15	2	0	0	0	1	7	1	7	217	230	405	410	2.26	-2.34	0.86	27	5	5	0	0.0	0		
Hampton	84.5	62.1	73.3	0.8	93	13	54	29	3	0	0	0	0	7	0	7	265	238	496	430	3.07	-2.17	1.32	10	6	3	2	0.0	0		
Kanawha																						3.21		-1.01	1.95	5	5	1	0.0	0	
Lake Mills																						2.95		-1.60	1.04	27	7	5	1	0.0	0
Mason City	83.1	61.9	72.5	1.0	92	7	55	14	3	0	0	0	0	11	0	11	239	211	439	372	3.37	-1.31	1.05	10	5	5	1	0.0	0		
Mason City Airport	83.7	60.9	72.3	0.5	92	15	+51	14	3	0	0	0	1	9	1	9	234	221	440	394	2.84	-1.86	0.81	19	7	6	0	0.0	0		
Nashua 2 SW																						8.41		5.23	22	7	5	2	0.0	0	
Northwood	80.0	60.3	70.2	-0.5	88	7	54	29	0	0	0	0	3	14	3	14	170	191	314	343	4.62	0.06	1.61	19	8	6	2	0.0	0		
Osage	83.8	63.8	73.8	1.8	92	7	55	29	4	0	0	0	0	8	0	8	282	224	503	392	3.96	-0.62	2.28	22	6	5	1	0.0	0		
Saint Ansgar																						3.49		1.24	22	6	5	2	0.0	0	
Swea City 4 W	83.9	60.0	72.0	0.3	93	18	+49	14	3	0	0	0	0	3	9	3	9	225	215	407	390	1.99	-2.44	0.74	26	7	5	0	0.0	0	
NORTHEAST DIVISION																															
Cascade	82.6	62.7	72.7	0.3	90	20	54	15	1	0	0	0	0	2	7	2	7	248	237	480	427	7.22	3.32	3.68	22	9	7	1	0.0	0	
Cresco 1 NE	83.4	59.7	71.6	1.2	92	13	51	30	2	0	0	0	0	17	0	17	210	184	372	318	4.41	-0.14	1.94	10	7	4	2	0.0	0		
Decorah	84.6	61.8	73.2	0.6	90	18	+53	15	3	0	0	0	0	6	0	6	264	242	464	431	2.73	-1.54	0.83	20	8	7	0	0.0	0		
Dubuque Lock & Dam 11	84.0	63.0	73.5	-1.4	93	7	57	16	3	0	0	0	1	2	1	2	272	307	513	559	9.21	4.43	4.23	22	9	6	2	0.0	0		

JULY 2017	MONTHLY SUMMARIZED STATION AND DIVISIONAL DATA																				IOWA CLIMATE REVIEW															
	TEMPERATURE (F)										PRECIPITATION (inches)										NUMBER OF DAYS			SNOWFALL (inches)												
	STATION			Avg	Avg	Dep	Ext	Ext	NUMBER OF DAYS				HEATING DEGREE DAYS				COOLING DEGREE DAYS				Dep			Precipitation												
	Max	Min	Mean	Norm	Max	Day	Min	Day	90+	32-	32-	0-	JUL	JUL	17-18	Norm	JUL	JUL	2017	Norm	Seas	Seas	2017	Norm	Seas	Seas	Total	Norm	Day	Day	0.01+	0.10+	1.00+	Total	GND	Day
Dubuque Airport	81.2	61.4	71.3	-0.7	88	19	52	2	0	0	0	0	2	8	2	8	204	224	399	400	7.42	3.11	2.52	21	9	8	3	0.0	0	0	0	0	0			
Elkader 6 SSW	82.0	59.6	70.8	-1.2	89	7	50	15	0	0	0	0	4	10	4	10	192	227	357	395	9.00	4.76	4.70	22	10	7	2	0.0	0	0	0	0	0			
Fayette	82.1	61.8	72.0	0.6	90	7	54	14	1	0	0	0	0	12	0	12	222	210	408	368	12.78	7.82	7.67	22	7	5	3	0.0	0	0	0	0	0			
Guttenberg L & D 10	83.8	65.9	74.9	0.5	92	6	56	14	3	0	0	0	1	3	1	3	314	294	587	535	13.88	9.53	6.23	22	7	7	3	0.0	0	0	0	0	0			
Ionia 2 W																					11.19		9.30	22	6	5	1	0.0	0	0	0	0	0			
Manchester #2	81.6	61.0	71.3	-0.4	89	7	51	15	0	0	0	0	4	10	4	10	206	217	397	383	4.66	-0.25	2.79	22	7	3	2	0.0	0	0	0	0	0			
New Hampton	81.3	60.8	71.1	0.2	89	7	53	14	0	0	0	0	0	12	0	12	195	195	368	340	9.20	4.33	6.35	22	5	5	2	0.0	0	0	0	0	0			
Oelwein 1 E	82.1	61.7	71.9	0.1	89	20	53	14	0	0	0	0	2	7	2	7	223	217	445	372	6.30	1.35	3.83	22	6	5	2	0.0	0	0	0	0	0			
Postville	82.1	61.0	71.6		90	7	53	16	1	0	0	0	0	0	0	0	209		386		4.06	-0.39	2.40	22	6	5	1	0.0	0	0	0	0	0			
Stanley 3 WSW	81.8	59.8	70.8		90	7	50	14	1	0	0	0	6	6	6	6	194		378		6.62		4.11	22	6	5	2	0.0	0	0	0	0	0			
Strawberry Point																					6.91		4.29	22	9	6	2	0.0	0	0	0	0	0			
Tripoli	83.1	62.6	72.9	0.8	91	7	54	14	3	0	0	0	0	8	0	8	248	227	477	409	8.30	3.55	4.76	22	7	6	2	0.0	0	0	0	0	0			
Waterloo Airport	83.8	62.7	73.3	-0.3	92	19	54	29	3	0	0	0	0	4	0	4	263	271	502	504	2.61	-2.30	1.47	22	4	4	1	0.0	0	0	0	0	0			
<b>WEST CENTRAL DIVISION</b>																																				
Audubon	84.8	62.2	73.5	0.5	93	21	52	31	3	0	0	0	0	7	0	7	270	253	476	455	2.75	-1.78	1.30	11	10	8	1	0.0	0	0	0	0	0			
Battle Creek 3 NE	86.6	62.9	74.8		93	18	51	1	12	0	0	0	0	0	0	0	309		552		2.35		1.10	4	7	5	1	0.0	0	0	0	0	0			
Carroll	87.7	64.6	76.2	2.4	97	21	57	31	13	0	0	0	0	4	0	4	353	275	658	502	3.12	-1.88	1.33	21	8	5	1	0.0	0	0	0	0	0			
Castana Exp. Farm	86.6	65.0	75.8	2.0	95	21	56	1	10	0	0	0	0	3	0	3	342	275	610	487	1.21	-3.09	0.55	26	10	3	0	0.0	0	0	0	0	0			
Denison	86.6	64.1	75.4	0.4	97	21	55	1	13	0	0	0	0	2	0	2	330	314	574	581	4.15	-0.12	1.90	27	8	4	2	0.0	0	0	0	0	0			
Guthrie Center	87.6	64.6	76.1	2.3	98	21	53	31	13	0	0	0	0	6	0	6	350	280	629	510	1.33	-3.53	0.84	11	6	3	0	0.0	0	0	0	0	0			
Holly Springs 1 NW																				1.65		0.78	27	6	3	0	0.0	0	0	0	0	0				
Holstein	85.2	65.4	75.3		92	19	51	1	7	0	0	0	0	0	0	0	328		575		1.69	-2.54	0.80	26	6	4	0	0.0	0	0	0	0	0			
Little Sioux 2 NW	88.5	64.4	76.5		97	22	52	1	12	0	0	0	0	0	0	0	362		665		7.08		3.85	13	10	6	2	0.0	0	0	0	0	0			
Logan	87.9	66.3	77.1	2.0	96	22	55	1	13	0	0	0	0	3	0	3	381	315	687	582	2.69	-1.69	0.71	1	7	6	0	0.0	0	0	0	0	0			
Mapleton #2	87.8	63.1	75.5	1.7	95	20	52	1	12	0	0	0	0	5	0	5	332	277	554	500	1.56	-2.79	0.67	27	6	4	0	0.0	0	0	0	0	0			
Rockwell City	85.6	64.3	75.0	2.2	94	20	56	1	9	0	0	0	0	5	0	5	315	248	582	451	0.97	-2.98	0.41	27	4	3	0	0.0	0	0	0	0	0			
Sac City	84.5	62.6	73.6	1.2	92	20	56	24	5	0	0	0	0	8	0	8	273	239	476	417	3.10	-1.11	1.70	4	3	3	1	0.0	0	0	0	0	0			
Sioux City Airport	89.6	65.7	77.7	3.4	97	25	51	1	16	0	0	0	0	3	0	3	401	293	693	545	0.84	-2.60	0.64	26	5	1	0	0.0	0	0	0	0	0			
<b>CENTRAL DIVISION</b>																																				
Ames Airport	86.8	63.9	75.4	2.0	96	20	55	30	10	0	0	0	0	4	0	4	330	263	609	486	2.82		1.71	20	6	3	1	0.0	0	0	0	0	0			
Ames 8 WSW	86.9	65.1	76.0	2.0	94	21	57	1	11	0	0	0	0	3	0	3	348	282	656	540	0.99	-3.84	0.62	21	6	2	0	0.0	0	0	0	0	0			
Ames 5 SE	85.6	62.9	74.3	1.1	95	21	56	31	5	0	0	0	0	5	0	5	294	260	522	469	2.84	-2.00	1.29	21	8	4	2	0.0	0	0	0	0	0			
Ankeny	88.2	67.4	77.8	2.5	99	21	56	30	14	0	0	0	0	2	0	2	404	320	728	583	1.98	-3.09	1.14	21	5	3	1	0.0	0	0	0	0	0			
Boone	87.0	64.6	75.8	2.7	97	21	56	31	9	0	0	0	0	5	0	5	346	256	578	451	1.24	-3.69	0.88	21	6	3	0	0.0	0	0	0	0	0			
Brooklyn																				2.65	-1.68	0.96	19	7	5	0	0.0	0	0	0	0	0				
Clutier																				1.95	-3.05	0.69	21	8	5	0	0.0	0	0	0	0	0				
Des Moines Airport	89.7	69.6	79.7	3.4	101	21	59	1	17	0	0	0	0	1	0	1	461	349	848	646	1.43	-3.04	0.80	4	6	3	0	0.0	0	0	0	0	0			
Des Moines Camp Dodge	88.0	67.9	78.0	3.1	97	21	58	1	13	0	0	0	0	2	0	2	410	309	726	560	2.09	-2.69	1.21	20	8	4	1	0.0	0	0	0	0	0			
Eldora	84.2	62.6	73.4	0.6	92	20	56	29	3	0	0	0	0	6	0	6	268	249	514	449	2.47	-1.98	1.56	22	7	3	1	0.0	0	0	0	0	0			
Fort Dodge 5 NNW	83.2	62.7	73.0	-0.2	91	16	55	31	2	0	0	0	0	5	0	5	258	261	459	474	1.10	-3.59	0.35	27	6	4	0	0.0	0	0	0	0	0			
Gilman																				2.85	-1.41	2.10	21	4	4	1	0.0	0	0	0	0	0				
Grinnell 3 SW	84.9	62.1	73.5	1.0	93	22	52	30	5	0	0	0	0	8	0	8	270	238	469	411	2.83	-1.51	1.07	21	6	4	1	0.0	0	0	0	0	0			
Grundy Center																																				

JULY 2017	MONTHLY SUMMARIZED STATION AND DIVISIONAL DATA																												IOWA CLIMATE REVIEW		
	TEMPERATURE (F)										PRECIPITATION (inches)																				
	NUMBER OF DAYS										HEATING DEGREE DAYS					COOLING DEGREE DAYS					NUMBER OF DAYS			SNOWFALL (inches)							
STATION	Avg Max	Avg Min	Dep Mean	Ext Norm	Ext Max	Ext Day	Max Min	Max Day	90+ 32-	32- 32-	0- 0-	JUL 2017	JUL NORM	17-18 SEAS	NORM	JUL 2017	JUL NORM	2017 SEAS	NORM	Dep Total	Ext Norm	Day Day	0.01+	0.10+	1.00+	Total GND	GND Day	Max On			
Montezuma 1 W																					2.72	-1.82	0.78	11	6	4	0	0.0	0		
Newton	87.0	64.7	75.9	1.8	97	21	58	31	+12	0	0	0	0	3	0	344	287	636	517	1.84	-2.71	0.82	21	+5	2	0	0.0	0			
Perry	88.2	64.8	76.5	2.3	98	21	56	30	+15	0	0	0	0	4	0	363	287	646	525	1.94	-2.48	1.17	21	8	4	1	0.0	0			
Toledo 3 N	84.5	61.6	73.1	0.4	93	21	54	30	+4	0	0	0	0	7	0	256	245	482	435	3.44	-1.00	1.67	21	6	4	2	0.0	0			
Webster City	85.1	61.4	73.3	0.5	93	21	+52	30	+4	0	0	0	0	5	0	5	264	246	463	440	0.65	-4.39	0.25	22	5	3	0	0.0	0		
Zearing																				2.00	-2.72	1.68	21	5	3	1	0.0	0			
<b>EAST CENTRAL DIVISION</b>																															
Anamosa 3 SSW	82.8	61.1	72.0	0.2	90	21	53	15	+1	0	0	0	1	10	1	10	226	220	413	392	6.92	2.01	2.06	10	10	7	3	0.0	0		
Belle Plaine	85.9	61.9	73.9	0.9	94	21	51	2	+6	0	0	0	0	6	0	6	284	254	524	459	2.15	-2.33	0.70	13	6	6	0	0.0	0		
Bellevue Lock & Dam 12	83.9	62.3	73.1	-0.3	93	7	54	31	+1	0	0	0	1	4	1	4	262	265	499	478	7.08	3.17	2.73	22	11	6	3	0.0	0		
Cedar Rapids Airport	84.5	62.3	73.4	0.4	92	20	52	15	+3	0	0	0	0	4	0	4	266	252	510	467	3.08	0.95	2.20	20	10	6	0	0.0	0		
Cedar Rapids #1	86.7	63.5	75.1	0.3	93	20	+53	30	+8	0	0	0	0	2	0	2	321	306	618	580	5.64	1.05	2.00	10	9	6	2	0.0	0		
Clinton #1	83.8	65.3	74.6	-0.2	89	19	+56	30	+0	0	0	0	0	2	0	2	304	307	608	590	7.57	3.80	3.67	22	9	7	2	0.0	0		
Coggon	82.8	60.5	71.7		90	20	52	16	+1	0	0	0	1		1		214		417		6.99		2.24	10	6	5	3	0.0	0		
Davenport Airport	83.9	62.6	73.3	0.1	91	21	+52	15	+4	0	0	0	0	4	0	4	265	258	553	501	7.18		2.62	22	7	6	3	0.0	0		
De Witt																				8.56	4.40	4.44	22	9	8	3	0.0	0			
Iowa City	85.5	62.5	74.0	-2.0	93	22	53	30	+8	0	0	0	0	1	0	1	286	341	526	650	8.03	3.45	3.75	22	8	7	3	0.0	0		
Iowa City Airport	87.2	66.5	76.9	2.1	95	20	57	2	+9	0	0	0	0	2	0	2	376	306	701	578	6.48		2.23	21	10	8	3	0.0	0		
Le Claire L & D 14	85.3	65.2	75.3	-0.4	93	7	60	16	+9	0	0	0	0	1	0	1	326	333	636	623	6.66	2.66	4.20	22	10	6	2	0.0	0		
Lowden	85.3	61.5	73.4	0.7	93	20	51	30	+8	0	0	0	0	5	0	5	269	243	540	442	5.26	0.80	1.50	10	8	7	2	0.0	0		
Maquoketa 4 W	82.8	61.2	72.0	0.4	90	19	+52	31	+2	0	0	0	3	10	3	10	228	216	448	391	4.77	0.75	2.96	22	8	4	1	0.0	0		
Monticello																				5.95		2.56	22	9	7	2	0.0	0			
Muscatine	86.4	64.5	75.5	-0.7	94	22	+56	30	+7	0	0	0	0	1	0	1	331	348	639	680	8.72	4.68	1.92	19	12	9	3	0.0	0		
Muscatine 2 N																				5.98		1.50	21	7	7	3	0.0	0			
Swisher																				2.45		0.96	21	8	4	0	0.0	0			
Vinton	82.9	61.4	72.2	-1.3	91	21	54	31	+1	0	0	0	0	4	0	4	229	267	414	497	1.83	-2.56	0.72	10	6	3	0	0.0	0		
Williamsburg 1 E	86.5	62.9	74.7	1.5	95	20	52	30	+8	0	0	0	0	4	0	4	308	260	576	476	3.10	-1.41	0.85	21	10	6	0	0.0	0		
<b>SOUTHWEST DIVISION</b>																															
Atlantic 1 NE	88.4	64.4	76.4	2.3	97	22	55	31	+13	0	0	0	0	4	0	4	362	286	648	528	2.21	-2.66	1.70	27	9	3	1	0.0	0		
Bedford	87.4	66.5	77.0	1.5	94	23	+55	1	+11	0	0	0	0	1	0	1	376	327	666	584	2.40	-2.52	1.15	13	6	4	1	0.0	0		
Clarinda	86.5	65.5	76.0	1.8	93	11	54	1	+7	0	0	0	0	4	0	4	349	289	608	520	3.51	-1.43	1.75	13	7	5	1	0.0	0		
Corning 1 W	86.6	64.8	75.7	1.4	94	22	54	1	+10	0	0	0	0	3	0	3	341	293	562	518	1.60	-2.74	0.66	19	6	4	0	0.0	0		
Glenwood	87.4	65.9	76.7	1.4	98	22	56	1	+12	0	0	0	0	0	0	0	369	317	663	534	1.89	-2.83	0.92	27	5	5	0	0.0	0		
Greenfield	87.0	66.2	76.6	1.2	95	22	+55	31	+11	0	0	0	0	2	0	2	367	323	639	597	0.54	-4.37	0.20	26	6	2	0	0.0	0		
Hastings 4 NE																				2.97		1.23	13	7	7	1	0.0	0			
Massena																				1.07		0.39	19	8	5	0	0.0	0			
Oakland	87.0	65.3	76.2	1.7	97	22	56	1	+9	0	0	0	0	4	0	4	354	298	654	554	1.50	-3.08	0.51	27	6	5	0	0.0	0		
Randolph																				2.83		-1.79	1.48	13	7	5	1	0.0	0		
Red Oak	87.6	66.8	77.2	1.3	96	22	55	1	+13	0	0	0	0	2	0	2	386	341	687	638	2.47	-1.84	0.89	13	9	5	0	0.0	0		
Shenandoah	87.9	67.5	77.7	1.2	97	22	57	1	+14	0	0	0	0	1	0	1	404	359	763	690	4.85	0.22	2.27	13	8	6	2	0.0	0		
Sidney 1 SSE	86.8	66.4	76.6	0.6	97	22	56	2	+12	0	0	0	0	2	0	2	368	343	679	642	4.89	0.05	3.28	13	6	4	1	0.0	0		
Underwood																				1.82		1.22	27	5	5	1	0.0	0			
<b>SOUTH CENTRAL DIVISION</b>																															
Albia 3 NNE	87.9	66.0	77.0	2.3	97	22	+55	30	+13	0	0	0	0	3	0	3	379	303	643	535	0.59	-4.57	0.52	5	4	1	0	0.0	0		
Allerton	88.5	66.2	77.4	3.3	97	23	58	30	+15	0	0	0	0	4	0	4	389	286	642	522	1.51	-3.66	0.45	27	4	4	0	0.0	0		
Beaconsfield	86.7	65.9	76.3	2.0	95	23	57	1	+9	0	0	0	0	3	0	3	357	291	606	502	1.37	-3.51	0.77	13	6	5	0	0.0	0		

JULY 2017		MONTHLY SUMMARIZED STATION AND DIVISIONAL DATA																				IOWA CLIMATE REVIEW								
		TEMPERATURE (F)										PRECIPITATION (inches)										SNOWFALL (inches)								
STATION		NUMBER OF DAYS				HEATING DEGREE DAYS				COOLING DEGREE DAYS				NUMBER OF DAYS				MAX ON												
		Avg	Avg	Dep	Ext	Ext	Max	Max	Min	Min	JUL	JUL	17-18	NORM	JUL	JUL	2017	NORM	SEAS	SEAS	Total	Dep	Ext	0.01+	0.10+	1.00+	Total	Gnd	Day	
Centerville		88.8	64.8	76.8	1.8	97	21	53	31	13	0	0	0	0	2	374	312	621	561	0.79	-4.41	0.45	14	6	2	0	0.0	0		
Chariton 1 E		88.9	63.0	76.0	2.2	98	21	50	30	16	0	0	0	0	5	345	278	554	475	0.30	-4.51	0.20	5	3	1	0	0.0	0		
Creston 2 SW		87.4	65.8	76.6	2.3	95	22	55	1	12	0	0	0	0	4	368	292	634	516	0.76	-3.63	0.30	13	7	3	0	0.0	0		
Indianola 4 W		89.3	66.0	77.7	3.4	100	21	54	30	14	0	0	0	0	3	400	291	521	1.08	-3.62	0.60	11	5	4	0	0.0	0			
Knoxville		87.7	66.8	77.3	2.2	99	21	58	30	14	0	0	0	0	2	389	323	686	583	0.61	-4.50	0.41	11	4	2	0	0.0	0		
Lamoni		90.2	68.2	79.2	3.0	98	23	+59	1	16	0	0	0	0	1	448	348	801	631	1.61	-3.49	0.73	13	6	4	0	0.0	0		
Lamoni Airport		88.1	68.4	78.3	3.1	98	22	58	1	10	0	0	0	0	2	420	316	742	563	1.54	0.90	13	5	3	0	0.0	0			
Lorimor																				0.24	-4.61	0.12	13	3	2	0	0.0	0		
Mount Ayr		86.6	66.5	76.6	2.4	94	22	55	1	8	0	0	0	0	4	369	289	623	492	1.64	-3.32	0.96	13	7	3	0	0.0	0		
Oscceola		91.0	66.6	78.8	3.8	100	22	+55	30	19	0	0	0	0	2	433	312	721	545	0.93	-4.23	0.30	4	5	4	0	0.0	0		
Pella 1 S																				0.60	-3.90	0.48	11	4	1	0	0.0	0		
Rathbun Dam		88.2	66.6	77.4	2.2	97	21	59	30	+13	0	0	0	0	2	394	320	670	576	3.10	-2.46	0.83	27	9	5	0	0.0	0		
Winterset 1 S															4		278		492	1.60	-2.80	0.51	11	7	5	0	0.0	0		
<b>SOUTHEAST DIVISION</b>																														
Bloomfield 1 WNW																2		322		576	0.41	-4.84	0.20	27	5	2	0	0.0	0	
Burlington Airport		87.3	66.1	76.7	-0.1	95	20	55	2	13	0	0	0	0	1	0	1	370	366	717	729	5.51	1.26	1.58	12	9	8	2	0.0	0
Donnellson		90.5	65.0	77.8		99	22	57	30	18	0	0	0	0		0	404		753		2.29	-2.07	0.96	13	9	5	0	0.0	0	
Fairfield		88.5	64.8	76.7	0.6	100	21	56	31	+14	0	0	0	0	1	0	1	368	345	648	659	1.14	-3.28	0.42	11	6	5	0	0.0	0
Fort Madison		88.6	67.5	78.1	0.9	97	19	59	30	17	0	0	0	0	0	0	411	377	771	717	5.67	1.28	2.58	10	8	8	1	0.0	0	
Keokuk Lock & Dam 19		87.9	66.8	77.4	0.7	98	21	62	16	+15	0	0	0	0	0	0	0	392	363	723	686	1.88	-2.39	0.79	12	10	5	0	0.0	0
Keosauqua		90.4	64.8	77.6		100	22	55	30	14	0	0	0	0	1	0	1	400	342	707	645	1.21	-3.81	0.56	11	7	5	0	0.0	0
Mount Pleasant 1 SSW		88.9	63.2	76.1	0.3	99	22	+54	2	14	0	0	0	0	1	0	1	352	337	617	639	5.49	0.78	2.50	21	9	4	2	0.0	0
Oskaloosa		87.8	64.1	76.0	1.5	99	22	+55	30	12	0	0	0	0	2	0	2	349	296	624	524	0.57	-4.04	0.49	11	5	1	0	0.0	0
Ottumwa Airport		90.5	65.6	78.1	3.1	101	20	55	30	16	0	0	0	0	2	0	2	415	314	745	579	0.64	-3.83	0.27	11	5	4	0	0.0	0
Ottumwa 5 W																				0.29		0.19	11	5	1	0	0.0	0		
Salem 1 S																				2.05		0.69	27	10	5	0	0.0	0		
Sigourney		88.6	63.9	76.3	2.0	98	22	+58	31	+13	0	0	0	0	3	0	3	357	291	637	525	0.76	-3.33	0.54	11	6	2	0	0.0	0
Washington		87.9	62.6	75.3	0.9	99	21	53	30	12	0	0	0	0	3	0	3	328	293	585	538	3.43	-0.88	0.82	19	10	7	0	0.0	0
<b>SUPPLEMENTAL STATIONS</b>																														
Moline Airport		86.3	64.4	75.4	0.0	94	20	55	30	+7	0	0	0	0	2	0	2	331	324	658	614	6.94	2.65	3.11	22	10	9	2	0.0	0
Omaha Eppley AP		90.5	69.8	80.2	3.5	103	21	60	24	+16	0	0	0	0	1	0	1	476	365	888	677	1.23	-2.60	0.57	26	8	4	0	0.0	0
Sioux Falls WFO AP		87.2	63.9	75.6	2.6	96	25	+50	1	7	0	0	0	0	8	0	8	336	256	561	427	1.13	-1.96	0.60	17	6	2	0	0.0	0
<b>DIVISIONAL AND STATE AVERAGES</b>																														
Northwest		86.1	62.6	74.4	1.7	98	18	+46	1	8	0	0	0	0	8	0	8	298	246	528	447	1.02	-2.83	1.26	27	4	2	0	0.0	0
North Central		83.4	61.8	72.6	0.6	94	16	49	14	3	0	0	0	1	8	1	8	243	226	446	406	3.42	-1.22	6.63	22	6	4	1	0.0	0
Northeast		82.6	61.7	72.2	0.0	93	7	50	15	+1	0	0	0	1	8	1	8	231	232	436	413	7.44	2.77	9.30	22	7	6	2	0.0	0
West Central		86.8	64.2	75.5	1.6	98	21	51	1	11	0	0	0	0	5	0	5	334	279	595	508	2.46	-1.80	3.85	13	7	4	1	0.0	0
Central		86.0	64.1	75.1	1.6	101	21	52	30	+8	0	0	0	0	5	0	5	319	269	579	488	2.05	-2.65	2.10	21	6	3	1	0.0	0
East Central		84.8	62.8	73.8	0.0	95	20	51	30	+5	0	0	0	0	4	0	4	281	277	539	516	5.72	1.36	4.44	22	9	6	2	0.0	0
Southwest		87.3	65.9	76.6	1.4	98	22	54	1	11	0	0	0	0	2	0	2	368	318	657	581	2.47	-2.27	3.28	13	7	5	1	0.0	0
South Central		88.4	66.2	77.3	2.7	100	22	+50	30	13	0	0	0	0	3	0	3	390	302	662	535	1.14	-3.84	0.96	13	5	3	0	0.0	0
Southeast		88.8	64.9	76.9	1.3	101	20	53	30	14	0	0	0	0	1	0	1	377	329	684	613	2.24	-2.23	2.58	10	7	4	0	0.0	0
State		85.9	63.7	74.8	1.2	101	21	+46	1	8	0	0	0	0	5	0	5	313	273	565	496	3.12	-1.38	9.30	22	6	4	1	0.0	0

JULY 2017				DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW						
STATION	OBS TIME			DAY OF MONTH																														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg	
<b>NORTHWEST DIVISION</b>																																		
Cherokee	8 MAX	79	82	89	88	90	90	95	86	88	94	84	92	92	82	88	97	91	96	90	94	91	83	88	83	83	93	84	86	85	83	83	88.0	
	MIN	50	51	63	64	62	69	60	58	57	69	64	73	61	58	60	67	70	70	72	72	72	71	65	53	59	69	59	60	61	56	57	63.0	
Emmetsburg	8 MAX	80	79	85	84	90	90	92	85	87	93	82	89	92	81	85	95	89	97	89	93	91	81	89	80	82	93	82	85	84	84	84	86.8	
	MIN	57	55	61	62	61	69	59	59	58	67	66	69	61	57	61	67	68	71	69	72	71	70	65	57	62	71	63	61	60	57	59	63.4	
Estherville Airport	24 MAX	75	80	82	86	86	89	82	82	88	81	85	86	75	80	89	84	92	86	86	86	78	86	76	78	89	83	82	81	80	81	80	83.0	
	MIN	52	59	56	65	62	67	59	55	56	61	61	62	56	49	62	62	68	68	68	67	70	65	59	53	64	62	59	57	55	53	55	60.2	
Estherville 4 E	7 MAX	79	75	79	83	88	88	92	84	84	89	81	86	87	75	81	91	84	93	88	88	87	78	86	76	79	90	83	82	81	80	81	83.8	
	MIN	54	55	56	59	62	67	60	56	57	61	61	67	58	50	53	62	65	68	68	67	70	68	62	53	56	66	59	58	55	53	55	60.0	
Hawarden	7 MAX	80	83	86	87	91	91	95	88	88	96	84	92	87	85	89	98	92	98	89	97	90	87	85	84	84	97	85	87	85	85	85	88.7	
	MIN	50	52	61	63	66	64	60	60	61	65	68	71	60	59	61	67	67	68	70	71	71	70	64	56	57	70	60	60	65	60	63	63.2	
Le Mars	7 MAX	79	82	88	88	89	89	93	86	87	93	85	90	88	84	88	96	91	93	89	93	89	88	85	84	84	93	86	84	83	84	84	87.6	
	MIN	51	54	64	66	64	65	59	59	60	62	66	69	60	58	60	66	69	69	72	71	70	71	65	53	56	67	59	58	58	60	60	62.6	
Pocahontas	8 MAX	79	79	87	86	89	89	93	85	87	92	82	89	91	81	85	95	90	94	89	94	91	82	88	82	84	92	80	85	86	84	85	86.9	
	MIN	57	60	62	64	61	67	63	60	56	69	62	69	63	57	62	65	65	72	71	73	71	69	65	57	61	69	62	61	59	53	53	63.2	
Primghar	16 MAX	79	82	85	88	90	92	92	86	92	92	89	90	83	83	93	93	95	94	91	91	88	86	89	81	93	92	83	82	82	83	82	87.8	
	MIN	53	62	60	64	63	69	62	62	63	63	67	75	60	57	71	66	68	68	70	70	70	63	58	68	71	60	65	64	64	65	64.9		
Rock Rapids	8 MAX	79	80	82	87	89	89	92	85	86	93	84	92	86	79	86	91	89	94	86	87	88	85	87	80	84	95	84	84	84	84	84	86.3	
	MIN	52	54	59	61	65	65	61	59	59	67	68	69	59	56	57	63	66	67	68	69	69	70	62	55	60	69	60	59	60	61	62	62.3	
Sanborn	8 MAX	77	77	82	84	88	87	90	82	84	91	82	89	86	79	83	90	87	92	86	89	88	82	85	80	82	90	81	82	82	81	82	84.5	
	MIN	51	54	62	64	65	67	60	61	63	66	65	70	59	55	57	65	67	69	69	69	70	70	62	59	59	68	61	63	62	64	65	63.3	
Sheldon	7 MAX	77	80	82	84	87	88	90	84	84	90	82	90	84	79	84	90	86	91	86	90	88	82	84	79	81	90	81	81	81	81	81	84.4	
	MIN	46	52	59	59	64	66	55	55	55	68	66	70	57	54	55	64	66	68	70	68	70	61	52	55	68	57	55	60	59	61	61	60.7	
Sibley	7 MAX	78	79	82	84	90	89	91	87	84	93	86	91	87	80	85	90	87	95	87	88	89	82	87	81	82	93	83	85	82	84	84	86.0	
	MIN	50	58	60	62	65	65	59	60	60	63	66	67	58	53	55	64	63	68	68	67	68	69	61	58	58	65	59	61	61	60	61	61	61.7
Sioux Center 2 SE	16 MAX	80	82	84	89	88	91	92	86	92	92	90	90	86	82	94	96	96	92	93	85	86	86	82	95	95	83	81	84	84	83	88.2		
	MIN	50	63	60	64	63	66	60	60	57	67	65	71	59	56	68	65	68	66	69	68	70	69	63	54	66	70	60	60	59	59	63.1		
Sioux Rapids 4 E	22 MAX	78	85	83	86	87	92	84	85	89	81	86	90	80	82	93	86	92	88	91	88	81	89	81	79	89	79	82	81	80	80	84.7		
	MIN	52	61	61	63	61	67	60	58	57	66	64	71	60	55	65	66	68	69	70	70	70	63	55	65	70	61	60	59	59	63.1			
Spencer Airport	24 MAX	79	85	85	89	89	92	87	87	93	83	90	91	81	85	94	89	96	88	92	92	82	90	81	83	93	83	86	83	85	84	87.2		
	MIN	51	62	60	62	61	66	57	56	54	62	63	65	57	52	65	66	70	68	71	69	72	65	57	53	67	61	60	56	59	54	58	61.3	
Spencer 1 N	24 MAX	78	83	84	90	89	93	84	86	92	81	90	88	79	84	93	86	95	88	93	89	81	87	79	82	92	82	83	82	81	83	83	85.8	
	MIN	52	64	59	63	62	69	62	58	56	56	63	66	58	54	66	65	69	70	69	69	71	69	62	55	66	66	61	59	62	53	58	62.3	
Spirit Lake 4 W	24 MAX	78	79	83	88	87	91	85	86	90	80	87	87	77	83	94	85	92	88	86	86	80	89	77	79	90	81	81	81	81	82	81	84.3	
	MIN	51	63	61	68	65	69	59	58	62	65	66	68	59	52	67	62	71	71	69	67	71	69	62	59	67	65	59	59	67	62	62	63.7	
Storm Lake	8 MAX	79	80	87	86	88	88	93	85	86	90	82	90	90	82	85	96	90	92	88	93	91	80	89	82	82	90	81	83	84	81	81	86.3	
	MIN	57	54	65	62	67	67	61	61	67	66	68	63	62	57	69	67	70	74	71	72	70	66	57	58	68	66	62	62	63	63	64.4		

JULY 2017		OBS TIME	DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW							
STATION			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
<b>NORTH CENTRAL DIVISION</b>																																		
Algona 3 W	6	MAX	79	75	83	83	87	88	92	84	85	88	79	85	90	78	80	91	86	91	88	90	87	79	86	79	79	89	79	83	84	81	82	84.2
		MIN	56	55	59	59	59	64	62	58	58	64	64	64	60	55	56	62	66	68	69	69	69	68	65	56	55	65	61	59	58	58	61.3	
Allison	7	MAX	78	75	85	84	85	88	90	83	83	86	82	82	89	77	76	90	85	83	87	89	87	74	83	78	77	84	78	82	81	81	81	82.7
		MIN	58	59	64	64	64	67	67	58	58	60	64	64	62	54	54	63	63	63	68	68	71	68	67	58	59	62	64	63	59	59	62	62.4
Charles City	22	MAX	74	83	81	83	87	90	82	81	85	80	80	89	76	74	89	83	82	84	86	85	76	83	77	75	82	77	81	81	79	80	80	81.5
		MIN	59	58	62	64	67	67	67	58	58	65	65	73	63	55	58	67	63	66	66	71	68	69	66	57	61	69	63	62	55	60	61	63.3
Clarion	7	MAX	79	76	86	86	88	89	91	83	85	90	83	86	91	79	80	93	88	88	88	93	89	78	85	80	80	89	76	84	84	82	82	84.9
		MIN	56	58	61	62	65	65	63	58	55	60	62	62	63	59	60	64	66	67	70	71	71	70	65	57	57	63	63	62	56	55	62.0	
Dakota City	8	MAX	79	77	81	86	88	87	92	84	86	89	82	86	92	80	82	94	88	91	88	93	89	82	87	82	81	90	76	84	84	82	83	85.3
		MIN	56	59	62	66	62	63	62	58	57	62	63	65	62	58	62	67	67	69	70	71	71	70	66	55	65	65	61	60	59	55	62.7	
Forest City 2 NNE	7	MAX	78	75	85	83	87	87	91	82	82	88	77	84	86	74	76	90	85	89	86	87	87	76	83	77	77	86	80	80	81	80	81	82.6
		MIN	57	58	59	62	65	67	62	58	58	62	62	66	61	53	53	63	64	65	68	64	69	68	65	55	58	62	58	58	54	58	60.9	
Hampton	7	MAX	80	77	86	85	86	89	91	85	86	88	83	83	93	80	80	91	88	86	86	89	87	76	87	81	78	85	78	85	85	83	83	84.5
		MIN	58	59	60	63	63	67	65	57	57	61	64	66	63	54	57	64	63	65	69	70	70	69	69	57	58	63	64	61	54	57	59	62.1
Mason City	7	MAX	79	76	85	85	85	88	92	84	84	87	81	82	90	77	75	91	84	86	86	86	85	74	86	79	78	85	77	83	82	81	82	83.1
		MIN	59	60	60	60	65	68	65	57	58	60	63	64	61	55	58	63	64	64	68	66	70	69	67	57	59	63	62	61	57	59	61.9	
Mason City Airport	24	MAX	76	85	85	87	88	92	85	83	89	81	83	91	77	77	92	86	88	88	87	86	74	85	79	77	85	78	83	83	81	82	81	83.7
		MIN	57	58	59	66	63	68	63	53	55	63	62	67	57	51	58	64	63	66	65	72	69	68	58	53	63	65	59	58	53	55	60.9	
Northwood	7	MAX	76	73	79	79	83	86	88	81	79	83	80	81	85	71	78	87	82	82	85	82	83	73	82	74	73	81	77	78	80	78	80	80.0
		MIN	57	56	58	59	64	66	63	55	54	54	63	71	60	56	58	63	62	63	66	65	67	67	65	54	54	61	60	60	54	56	57	60.3
Osage	7	MAX	79	75	85	85	87	90	92	84	84	86	86	83	91	77	76	91	87	85	87	88	89	73	84	79	77	84	80	84	84	84	83	83.8
		MIN	60	61	62	63	64	68	66	59	60	66	68	68	64	58	61	64	65	67	70	68	71	68	67	58	61	65	63	64	55	59	64	63.8
Swea City 4 W	7	MAX	80	78	82	82	87	88	93	85	85	88	80	86	88	75	79	90	85	93	89	87	85	77	88	77	78	88	83	81	81	81	81	83.9
		MIN	54	54	54	59	62	65	61	56	57	59	62	66	57	49	51	62	64	68	68	66	68	68	63	55	56	67	61	61	55	55	57	60.0
<b>NORTHEAST DIVISION</b>																																		
Cascade	7	MAX	80	80	85	82	84	87	89	83	80	84	84	81	87	80	71	84	84	81	88	90	87	81	83	85	76	81	83	83	80	79	80	82.6
		MIN	62	56	61	63	66	64	67	60	61	66	67	67	68	56	54	57	57	60	68	69	70	69	68	61	61	69	69	61	58	55	55	62.7
Cresco 1 NE	7	MAX	80	75	84	85	86	87	91	84	82	83	84	83	92	78	76	88	85	83	89	86	89	72	85	80	76	82	82	85	83	84	85	83.4
		MIN	58	56	56	60	60	66	64	52	59	60	62	69	60	56	56	58	58	63	66	66	64	67	62	54	58	61	59	57	51	51	62	59.7
Decorah	16	MAX	79	84	82	84	89	90	89	84	85	85	85	90	88	77	87	86	83	90	88	88	86	84	85	78	81	81	83	83	81	84	83	84.6
		MIN	56	56	62	61	64	65	68	55	58	66	64	70	61	55	53	66	59	64	68	67	65	70	64	57	58	70	60	60	54	58	63	61.8
Dubuque Lock & Dam 11	6	MAX	79	78	88	84	87	87	93	84	81	88	82	84	88	80	70	86	84	85	92	91	86	86	85	85	79	82	80	84	81	82	82	84.0
		MIN	61	58	61	63	63	66	66	62	63	66	65	66	67	58	57	57	61	61	69	67	68	68	69	61	61	63	64	64	59	59	63.0	
Dubuque Airport	24	MAX	77	84	80	83	86	87	83	79	84	83	80	85	79	70	81	80	79	86	88	86	78	85	84	75	78	81	82	79	77	80	79	81.2
		MIN	57	52	64	61	67	64	64	59	59	65	65	65	61	55	53	64	57	63	66	67	68	68	64	60	59	67	64	61	56	54	54	61.4
Elkader 6 SSW	7	MAX	79	75	84	81	84	88	89	83	80	85	84	81	87	79	74	86	82	81	88	87	87	72	84	81	76	80	79	83	83	79	81	82.0
		MIN	57	52	61	60	63	62	65	54	56	64	64	66	61	51	50	55	57	60	65	66	69	68	64	58	55	59	65	59	52	54	55	59.6
Fayette	7	MAX	78	74	85	82	84	89	90	82	80	85	83	81	87	78	74	87	83	81	87	87	87	87	83	80	76	80	77	83	82	81	81	82.1
		MIN	59	59	63	61	64	65	68	56	59	61	65	67	63	54	56	60	61	62	67	66	69	67	66	58	59	61	65	62	57	57	59	61.8

JULY 2017				DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW								
STATION	TIME	OBS		1	2	3	4	5	6	7	8	9	10	11	12	13	14	DAY OF MONTH	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
		MAX	MIN																																	
Guttenberg L & D 10	24	MAX	80	88	82	86	91	92	84	82	87	84	82	90	81	72	87	83	83	89	88	86	78	83	84	77	82	81	84	83	82	83	84	83.8		
		MIN	61	60	70	65	65	67	73	63	64	68	70	67	65	56	57	71	64	67	69	69	70	68	70	64	64	73	71	66	62	61	63	65.9		
Manchester #2	7	MAX	78	75	83	81	83	87	89	82	80	85	82	81	87	79	71	85	80	80	87	88	86	80	82	83	75	80	80	82	80	78	80	81.6		
		MIN	60	54	63	60	63	62	68	56	58	63	64	66	65	53	51	60	59	63	65	67	70	67	66	59	59	63	68	59	54	53	54	61.0		
New Hampton	8	MAX	77	72	82	82	84	87	89	81	80	84	82	80	88	76	73	87	87	81	86	86	85	75	81	77	80	80	76	81	80	79	81	81.3		
		MIN	57	57	59	61	62	66	65	59	57	61	64	66	61	53	56	59	59	62	66	64	68	66	63	57	58	58	63	62	57	59	60	60.8		
Oelwein 1 E	7	MAX	76	76	84	83	84	88	89	82	80	87	84	81	87	75	74	85	84	82	86	89	86	77	83	80	77	79	79	83	82	81	81	82.1		
		MIN	60	58	60	62	64	65	66	57	57	59	64	68	63	53	54	56	61	62	66	67	69	67	66	59	59	62	67	64	58	59	62	61.7		
Postville	7	MAX	80	74	85	81	84	88	90	83	81	85	85	81	85	79	75	86	83	81	88	85	87	75	85	82	75	79	77	83	80	81	81	82.1		
		MIN	59	57	61	61	63	66	68	55	61	65	65	68	62	54	55	53	60	61	67	65	67	65	65	56	59	58	64	60	54	57	60	61.0		
Stanley 3 WSW	4	MAX	78	75	83	81	83	89	90	82	79	86	84	81	89	78	73	87	82	81	88	88	86	75	82	80	75	81	78	81	80	79	81	81.8		
		MIN	58	51	62	61	63	62	69	55	56	56	62	65	61	50	51	59	60	62	65	63	67	66	63	58	60	61	67	60	54	54	54	59.8		
Tripoli	7	MAX	81	76	86	83	85	90	91	84	83	87	84	83	90	79	76	89	83	83	88	89	86	74	84	81	76	82	78	81	81	81	82	83.1		
		MIN	59	60	62	63	64	68	69	58	60	63	65	67	63	54	56	61	63	63	67	67	70	67	67	59	60	62	65	62	57	59	60	62.6		
Waterloo Airport	24	MAX	76	84	85	85	89	90	84	82	88	85	82	88	79	76	88	84	84	88	92	90	77	85	82	78	84	80	83	83	82	82	83.8			
		MIN	59	56	63	64	65	69	64	56	59	66	65	68	59	54	60	68	63	68	67	73	69	69	61	57	62	70	65	58	56	58	62.7			
<b>WEST CENTRAL DIVISION</b>																																				
Audubon	8	MAX	77	79	82	87	86	86	87	82	85	88	85	87	85	83	81	88	88	89	85	90	93	92	87	83	83	89	77	81	81	81	84.8			
		MIN	55	58	61	62	59	60	65	58	59	63	67	67	66	59	59	64	68	67	70	71	72	71	67	55	54	65	64	59	59	53	52	62.2		
Battle Creek 3 NE	8	MAX	79	81	87	90	90	88	92	83	87	91	83	90	88	82	87	93	92	93	90	92	92	86	86	81	82	91	81	81	82	82	81	83	86.6	
		MIN	51	57	61	65	60	66	59	59	57	66	66	69	62	57	64	64	70	71	72	72	70	72	65	53	61	71	61	59	60	56	55	62.9		
Carroll	7	MAX	80	82	87	91	90	90	93	86	86	92	86	91	88	86	85	93	93	93	90	94	97	89	86	84	82	92	79	84	84	83	82	87.7		
		MIN	58	59	64	67	64	63	66	62	60	62	67	69	67	58	58	68	71	73	72	74	70	72	71	58	59	66	64	64	63	57	64.6			
Castana Exp. Farm	8	MAX	81	80	84	89	89	87	93	83	87	91	85	90	87	84	85	90	91	91	88	92	95	93	86	84	83	91	80	82	80	82	82	86.6		
		MIN	56	57	65	66	63	67	63	64	63	66	68	68	65	59	61	69	69	71	72	73	72	73	68	58	61	70	63	64	62	60	59	65.0		
Denison	7	MAX	77	78	84	90	88	90	93	84	88	91	84	90	89	83	88	90	90	92	90	92	97	91	84	82	82	90	80	83	82	83	79	86.6		
		MIN	55	56	63	64	65	65	62	62	64	66	67	67	64	58	58	68	69	70	71	72	75	70	69	57	57	67	62	62	62	60	60	64.1		
Guthrie Center	8	MAX	79	80	85	90	88	90	91	84	88	88	87	91	89	85	84	92	91	93	90	92	98	96	87	85	82	92	80	85	84	83	82	87.6		
		MIN	55	62	63	62	60	66	66	59	60	73	69	70	67	60	63	69	71	71	73	74	73	72	67	55	65	70	66	58	58	53	53	64.6		
Holstein	22	MAX	79	85	87	87	86	91	83	84	91	82	89	81	84	92	88	92	87	92	90	90	83	85	80	81	90	80	82	81	81	80	80	85.2		
		MIN	51	65	63	63	63	67	59	65	64	69	67	74	62	57	67	67	71	72	72	76	72	71	66	60	67	69	60	62	63	62	61	65.4		
Little Sioux 2 NW	7	MAX	80	83	85	90	90	88	97	83	89	95	89	94	88	85	84	91	92	95	88	94	97	97	85	85	85	95	83	85	83	84	85	88.5		
		MIN	52	54	64	64	64	64	64	59	63	64	67	68	67	62	67	68	70	72	74	74	72	75	68	59	65	73	64	63	62	60	58	64.4		
Logan	8	MAX	78	83	83	89	89	88	92	83	90	91	87	92	88	84	87	91	93	92	91	93	96	96	90	86	85	93	80	84	84	84	83	87.9		
		MIN	55	61	65	67	64	67	66	60	64	72	69	70	68	62	67	68	70	72	74	74	72	75	68	59	65	73	64	63	62	60	58	66.3		
Mapleton #2	7	MAX	78	81	85	90	90	89	94	86	87	93	85	93	87	85	87	93	89	95	91	95	92	93	88	84	85	94	82	82	80	85	84	87.8		
		MIN	52	65	62	64	61	66	60	58	60	61	67	67	64	57	62	66	66	72	72	73	71	71	67	54	54	69	59	60	59	57	63.1			
Rockwell City	7	MAX	78	79	87	86	87	87	92	84	85	91	83	90	90	82	82	93	88	93	89	94	92	82	85	82	80	91	75	83	82	80	81	85.6		
		MIN	56	57	63	63	64	65	63	61	64	70	66	67	64	58	58	66	69	71	72	74	71	72	69	58	61	66	63	63	62	58	58	64.3		

JULY 2017		OBS TIME	DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW							
STATION			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
Sac City	7	MAX	78	79	86	87	86	85	90	83	83	89	82	88	89	82	82	90	87	91	87	92	90	78	86	82	79	89	76	81	80	81	82	84.5
		MIN	56	56	57	62	62	62	62	60	59	70	64	67	63	57	56	68	69	69	70	71	70	69	68	56	57	64	61	60	60	58	58	62.6
Sioux City Airport	24	MAX	85	88	91	90	90	97	88	90	94	88	93	91	87	89	96	94	95	92	94	93	91	83	86	85	97	87	87	84	85	84	84	89.6
		MIN	51	65	66	67	66	67	63	61	63	71	70	70	65	62	67	70	70	71	74	73	73	65	63	56	69	71	61	62	60	64	62	65.7
CENTRAL DIVISION																																		
Ames Airport	24	MAX	80	84	90	90	91	92	85	85	92	87	91	89	84	83	91	91	88	87	94	96	85	88	83	81	89	80	85	85	82	82	86.8	
		MIN	57	58	62	65	61	67	66	62	59	67	64	68	66	57	60	70	68	70	70	70	71	71	63	60	65	69	65	62	58	55	56	63.9
Ames 8 WSW	16	MAX	78	82	88	88	88	90	90	84	90	89	89	90	90	90	90	90	87	88	93	94	94	84	84	80	89	90	82	83	83	81	82	86.9
		MIN	57	61	64	64	64	68	66	61	63	63	66	66	66	58	61	71	68	73	72	77	70	71	68	58	65	70	65	63	59	60	59	65.1
Ames 5 SE	6	MAX	80	79	83	88	88	89	91	84	85	92	86	89	89	82	81	90	89	86	87	92	95	85	86	82	80	87	79	84	83	81	81	85.6
		MIN	57	57	61	63	62	62	67	61	60	60	66	67	66	58	58	61	67	68	70	71	69	71	68	59	58	64	67	62	58	56	56	62.9
Ankeny	8	MAX	82	81	84	88	90	90	93	85	87	93	89	94	92	84	82	92	90	90	91	96	99	98	88	86	83	93	81	85	84	83	82	88.2
		MIN	59	62	67	68	64	72	71	66	64	64	69	72	68	66	64	70	71	73	74	81	73	75	72	62	65	70	69	63	61	56	57	67.4
Boone	8	MAX	80	80	84	89	89	89	91	85	85	91	86	91	89	84	83	92	90	92	89	95	97	85	87	84	82	92	79	85	85	83	83	87.0
		MIN	57	62	63	69	63	66	66	61	62	72	64	70	66	57	60	69	68	71	70	75	70	71	66	59	63	68	64	62	58	56	56	64.6
Des Moines Airport	24	MAX	82	83	90	91	90	93	87	88	94	91	95	89	86	86	93	94	91	91	98	100	101	92	90	84	95	80	87	87	85	83	86	89.7
		MIN	59	66	69	70	68	71	71	66	68	76	71	74	70	64	66	75	72	75	76	76	75	77	69	64	67	73	71	66	65	63	64	69.6
Des Moines Camp Dodge	24	MAX	81	84	88	88	89	92	86	87	93	90	92	91	86	83	92	92	90	90	97	97	97	88	85	82	93	80	84	84	82	82	83	88.0
		MIN	58	66	69	69	69	71	68	64	65	71	69	72	67	63	65	73	72	75	75	72	73	74	66	62	67	70	68	65	63	62	63	67.9
Eldora	7	MAX	80	77	84	86	86	89	91	83	84	89	85	84	89	79	78	90	86	87	87	92	89	79	84	81	79	87	78	82	83	81	81	84.2
		MIN	57	57	62	66	64	66	66	60	60	61	64	66	63	56	58	61	64	66	69	70	70	69	68	57	59	63	65	63	56	58	58	62.6
Fort Dodge 5 NNW	7	MAX	77	76	84	84	86	85	89	82	84	87	80	84	89	78	80	91	85	87	86	90	88	78	86	79	79	88	75	82	82	79	80	83.2
		MIN	56	61	62	65	62	64	61	59	59	59	64	66	62	57	58	64	66	72	71	75	70	71	66	56	61	65	62	61	59	56	55	62.7
Grinnell 3 SW	7	MAX	80	78	81	86	86	87	90	85	85	90	88	88	88	81	79	88	87	85	86	90	93	93	84	83	78	86	80	84	82	80	81	84.9
		MIN	55	53	62	64	61	61	68	57	58	60	67	70	68	58	60	61	65	65	69	71	71	67	57	60	64	66	58	52	52	54	54	62.1
Grundy Center	8	MAX	78	75	83	86	85	88	90	82	82	87	83	83	88	78	77	89	85	84	87	91	89	81	83	80	79	84	80	82	82	81	81	83.4
		MIN	58	60	62	64	63	69	67	58	60	65	62	66	63	55	59	65	62	65	67	68	70	70	66	57	60	63	65	61	54	57	57	62.5
Iowa Falls	7	MAX	79	77	84	86	86	88	90	84	85	88	84	83	90	79	77	91	88	86	87	90	90	79	85	82	79	86	79	84	85	83	83	84.4
		MIN	58	58	63	63	64	66	66	60	57	66	64	65	63	57	58	62	65	67	69	70	71	70	68	58	59	64	64	61	56	57	58	62.8
Marshalltown	7	MAX	79	77	85	89	89	89	91	84	85	90	86	90	89	81	79	89	88	87	88	92	96	84	84	82	81	87	79	84	82	82	81	85.5
		MIN	59	58	62	64	62	65	69	59	61	62	64	68	64	57	58	63	65	66	70	73	69	71	68	58	59	64	67	59	55	55	57	62.9
Marshalltown Airport	24	MAX	77	84	88	87	89	90	84	85	90	87	88	89	82	79	90	89	87	88	93	95	84	86	84	80	87	79	85	84	82	81	83	85.7
		MIN	58	57	62	67	63	67	65	59	61	67	63	67	62	56	60	67	65	67	71	70	72	63	57	63	71	64	60	56	58	63.4		
Newton	7	MAX	82	80	84	91	89	90	93	86	86	93	91	92	91	83	80	92	90	87	89	93	97	91	85	85	80	89	80	85	83	81	80	87.0
		MIN	60	60	65	67	64	64	70	64	62	67	69	69	69	59	59	62	67	67	70	71	70	70	60	60	64	68	64	59	58	58	64.7	
Perry	7	MAX	81	80	84	90	91	91	92	85	87	92	87	91	91	85	84	93	92	95	90	96	98	94	87	84	84	94	79	85	85	84	84	88.2
		MIN	56	57	63	68	63	66	66	67	61	66	66	69	67	59	61	67	72	72	74	74	72	73	69	58	59	67	65	61	56	58	58	64.8
Toledo 3 N	7	MAX	79	77	84	88	89	89	92	82	83	91	86	87	89	80	76	89	85	84	88	91	93	84	83	81	80	84	80	82	81	82	82	84.5
		MIN	58	57	62	62	63	63	68	59	59	62	64	64	64	56	56	59	64	64	66	70	68	68	56	56	62	68	60	54	54	55	61.6	

JULY 2017			DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW								
STATION	OBS	TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg	
Webster City	7	MAX	82	77	85	85	86	88	89	84	84	89	85	85	93	81	81	91	88	88	85	92	93	79	86	84	80	89	78	84	84	82	82	85.1	
		MIN	55	58	60	65	62	64	64	58	57	60	60	63	62	58	59	63	68	69	70	73	69	68	64	55	55	63	60	59	55	52	54	61.4	
EAST CENTRAL DIVISION																																			
Anamosa 3 SSW	6	MAX	79	77	84	85	85	87	89	83	81	85	87	82	87	79	74	84	82	79	89	88	90	85	82	83	77	79	82	84	81	79	80	82.8	
		MIN	59	54	59	61	64	63	63	58	60	61	65	65	67	56	53	55	60	60	66	67	69	68	60	59	60	68	61	57	54	54	61.1		
Belle Plaine	7	MAX	82	80	83	90	87	89	92	85	85	91	89	87	90	80	77	89	87	83	89	91	94	89	86	85	80	86	82	86	85	83	81	85.9	
		MIN	60	51	61	64	60	63	71	58	59	65	66	69	66	56	54	56	61	63	70	70	71	71	67	60	59	63	68	58	54	52	53	61.9	
Bellevue Lock & Dam 12	6	MAX	83	82	89	83	88	88	93	86	83	88	84	82	88	82	71	85	82	84	89	89	88	83	84	84	78	78	83	84	79	78	82	83.9	
		MIN	62	55	57	66	67	67	65	63	59	59	67	67	71	58	56	56	60	60	66	66	69	68	69	64	59	59	69	61	58	54	54	62.3	
Cedar Rapids Airport	24	MAX	79	84	88	87	87	90	85	82	88	89	86	88	81	76	85	85	82	89	91	92	88	83	85	78	82	82	85	82	80	79	80	84.5	
		MIN	56	54	62	63	65	63	63	58	61	66	67	70	63	56	52	64	59	65	67	70	71	69	63	59	59	70	65	60	59	56	56	62.3	
Cedar Rapids #1	17	MAX	80	86	86	87	89	93	92	85	89	90	86	90	87	81	89	87	84	92	92	93	90	85	87	82	84	86	86	85	83	81	82	86.7	
		MIN	60	56	64	64	66	64	71	58	59	65	67	73	66	55	55	71	60	65	68	73	70	68	68	59	60	70	68	60	56	53	55	63.5	
Clinton #1	18	MAX	79	86	85	84	87	89	88	83	83	87	85	83	85	85	79	82	82	79	87	89	88	88	85	87	82	79	83	83	82	78	79	81	83.8
		MIN	63	57	65	63	69	67	75	62	63	66	70	74	70	59	58	71	60	63	69	70	71	67	71	65	61	68	68	63	60	56	59	65.3	
Coggon	6	MAX	80	76	84	83	84	88	89	84	81	85	85	82	87	79	74	86	82	81	88	90	89	81	84	84	76	81	82	84	81	79	79	82.8	
		MIN	60	54	58	61	63	63	67	57	59	63	64	65	65	55	53	52	59	59	65	67	70	67	67	58	58	68	59	55	53	53	60.5		
Davenport Airport	24	MAX	80	86	87	85	87	88	85	81	87	88	83	86	81	74	83	81	81	90	90	91	91	83	87	76	81	84	84	80	78	80	82	83.9	
		MIN	61	55	66	62	66	64	64	60	60	66	69	73	65	57	52	64	56	63	68	69	70	68	64	61	59	70	66	60	54	53	56	62.6	
Iowa City	7	MAX	81	80	85	89	87	87	91	87	82	90	90	89	90	82	78	87	86	83	91	91	90	93	86	87	79	82	84	84	80	79	79	85.5	
		MIN	62	53	60	64	64	64	66	60	60	62	66	71	70	60	54	57	60	61	66	70	71	69	69	63	60	63	69	58	57	53	55	62.5	
Iowa City Airport	24	MAX	82	86	89	88	90	92	88	85	91	92	89	91	84	80	87	87	83	92	92	95	93	88	89	80	84	86	88	84	82	81	84	87.2	
		MIN	61	57	65	67	70	67	68	64	64	69	72	73	69	62	58	71	64	67	70	74	73	71	70	65	63	70	71	66	61	58	60	66.5	
Le Claire L & D 14	6	MAX	81	82	89	89	85	90	93	85	82	90	90	84	87	83	72	84	81	83	91	92	92	92	84	90	79	83	85	84	81	80	82	85.3	
		MIN	65	62	62	65	65	69	69	63	63	67	69	73	72	60	60	60	61	61	68	72	71	69	69	64	63	63	70	64	61	61	65.2		
Lowden	24	MAX	82	88	86	86	90	92	85	82	90	90	84	90	82	74	85	82	82	92	91	93	88	85	89	78	82	85	85	82	80	81	84	85.3	
		MIN	57	53	62	62	65	63	62	59	59	65	68	71	64	55	53	64	56	62	68	70	70	69	65	60	57	68	64	58	55	51	52	61.5	
Maquoketa 4 W	7	MAX	82	77	86	81	84	87	90	83	79	86	86	82	88	79	70	84	81	80	90	89	88	86	84	87	76	80	84	82	79	77	80	82.8	
		MIN	60	55	60	61	63	65	67	59	60	65	66	67	68	55	53	55	56	57	67	68	69	68	66	62	57	59	67	60	55	53	52	61.2	
Muscatine	6	MAX	81	82	88	89	87	89	92	86	83	91	92	89	89	84	78	86	86	83	91	92	94	94	87	89	77	84	86	86	82	80	80	86.4	
		MIN	63	56	60	67	67	66	67	61	63	67	68	70	71	63	57	58	62	63	68	71	72	69	69	64	63	63	71	65	61	56	59	64.5	
Vinton	7	MAX	79	75	83	83	86	88	89	85	80	86	85	82	86	78	76	86	82	81	87	89	91	81	84	82	78	81	81	84	82	80	80	82.9	
		MIN	58	54	62	63	66	64	68	57	59	64	65	65	63	54	54	59	60	63	66	70	68	67	66	57	59	64	67	59	54	54	54	61.4	
Williamsburg 1 E	7	MAX	82	80	85	87	88	89	93	86	84	91	89	92	91	82	78	89	86	86	92	95	94	94	85	86	80	87	83	85	82	82	80	86.5	
		MIN	58	56	63	64	64	65	71	59	62	65	68	70	70	57	56	56	61	60	68	74	72	70	60	61	61	69	59	55	52	55	62.9		
SOUTHWEST DIVISION																																			
Atlantic 1 NE	7	MAX	80	82	83	90	89	89	90	84	86	91	90	93	89	85	88	91	93	93	89	94	95	97	92	89	86	93	77	85	86	85	85	88.4	
		MIN	57	59	62	64	62	64	64	57	61	63	69	70	70	60	62	66	68	70	74	74	76	75	69	55	56	70	66	59	61	57	55	64.4	

JULY 2017		OBS TIME	DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW							
STATION			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
Bedford	7	MAX	81	86	88	89	86	88	90	82	87	90	93	92	89	82	86	90	92	90	86	89	93	94	94	86	84	91	77	85	85	84	81	87.4
		MIN	55	56	60	70	67	66	67	61	63	67	73	73	73	65	65	68	70	72	70	71	73	76	70	62	62	68	69	65	65	61	59	66.5
Clarinda	6	MAX	79	83	84	87	85	88	89	83	86	89	93	90	88	82	87	89	92	89	85	88	92	91	88	83	90	78	84	84	82	82	86.5	
		MIN	54	63	63	65	63	64	66	57	61	72	73	72	70	66	65	66	69	69	69	71	71	74	70	61	61	68	69	61	61	59	57	65.5
Corning 1 W	7	MAX	79	82	83	87	86	87	89	81	86	90	91	91	88	82	85	89	91	91	87	90	92	94	91	88	83	90	76	85	85	83	82	86.6
		MIN	54	58	65	65	64	66	69	58	62	65	70	70	70	64	64	65	65	71	70	71	71	73	66	59	62	69	68	60	62	58	55	64.8
Glenwood	6	MAX	79	84	84	89	89	89	92	81	87	92	90	93	86	84	87	91	92	91	86	92	94	98	91	85	84	93	78	83	82	82	81	87.4
		MIN	56	57	65	63	64	63	68	60	60	65	72	71	69	66	65	67	70	73	73	75	73	73	67	62	61	70	69	63	63	60	59	65.9
Greenfield	8	MAX	79	80	81	88	86	87	89	83	85	89	90	91	91	84	85	90	93	92	88	91	95	95	90	88	85	91	77	85	85	83	81	87.0
		MIN	55	64	66	67	62	68	67	63	63	74	69	74	68	60	64	64	72	71	72	75	75	74	69	60	64	71	67	62	60	57	55	66.2
Oakland	7	MAX	78	82	82	89	87	88	89	80	86	91	88	92	88	85	87	90	94	92	89	91	94	97	88	86	85	92	76	82	83	84	83	87.0
		MIN	56	58	64	67	64	67	66	61	63	67	68	68	70	61	62	67	69	70	70	72	75	74	68	60	61	67	65	63	63	59	58	65.3
Red Oak	7	MAX	79	83	84	89	87	90	90	83	85	90	93	92	86	85	87	89	92	90	87	90	94	96	92	90	84	92	80	86	86	83	83	87.6
		MIN	55	58	65	67	65	68	70	59	62	67	71	71	71	66	67	69	70	73	73	73	76	75	68	60	63	70	69	63	65	62	59	66.8
Shenandoah	8	MAX	79	84	84	89	85	89	92	83	88	92	93	93	87	83	87	90	93	90	90	90	96	97	92	90	85	93	78	84	85	82	82	87.9
		MIN	57	66	67	67	63	68	69	60	65	72	73	76	71	66	68	70	70	75	74	73	77	75	69	61	61	66	69	62	64	61	59	67.5
Sidney 1 SSE	7	MAX	78	87	84	88	85	87	91	80	87	92	91	93	87	80	87	90	93	90	84	92	96	97	90	87	82	92	78	81	81	81	80	86.8
		MIN	58	56	67	65	65	65	68	63	63	67	70	70	69	65	66	71	71	73	72	73	76	69	61	62	67	68	63	62	60	60	66.4	
SOUTH CENTRAL DIVISION																																		
Albia 3 NNE	7	MAX	83	82	82	89	88	86	91	85	86	90	93	92	89	85	82	90	94	87	90	93	97	97	94	90	83	91	83	86	84	82	82	87.9
		MIN	65	60	68	67	63	65	71	64	64	68	69	69	73	61	61	63	68	68	73	76	76	75	73	61	62	63	70	61	56	55	58	66.0
Allerton	8	MAX	80	83	84	90	88	86	91	85	89	92	94	94	90	84	83	89	93	90	90	92	96	96	97	93	85	92	80	87	85	84	82	88.5
		MIN	58	62	64	64	64	65	65	64	65	67	74	74	70	63	62	65	69	70	71	73	77	76	72	61	60	64	71	63	61	58	59	66.2
Beaconsfield	7	MAX	79	80	82	89	88	87	87	83	85	89	92	92	87	81	83	87	92	90	86	89	92	93	95	90	85	90	77	87	84	84	82	86.7
		MIN	57	58	61	67	64	64	68	65	65	69	72	72	69	63	64	66	71	71	72	71	75	75	71	59	61	65	69	61	61	59	59	65.9
Centerville	7	MAX	80	83	84	89	88	87	90	83	87	91	93	92	91	85	84	89	94	88	91	92	97	96	96	92	88	92	83	89	88	86	85	88.8
		MIN	56	56	60	65	64	62	63	59	62	75	74	74	70	63	63	64	69	70	69	69	78	75	72	59	59	64	71	60	57	54	53	64.8
Chariton 1 E	7	MAX	81	83	83	90	88	87	92	85	88	91	95	94	91	83	84	91	95	90	91	94	98	97	95	91	86	93	82	86	86	84	82	88.9
		MIN	60	57	61	66	59	61	65	57	57	57	70	70	72	58	60	66	69	69	68	74	74	75	69	55	65	70	56	52	50	55	63.0	
Creston 2 SW	7	MAX	80	81	83	88	88	86	89	82	86	90	90	93	88	84	85	90	93	91	87	91	94	95	93	90	85	94	77	85	85	84	82	87.4
		MIN	55	58	65	65	66	67	68	64	64	69	71	71	69	63	64	64	66	71	71	71	75	74	69	60	63	67	68	62	60	60	65.8	
Indianola 4 W	7	MAX	83	81	85	89	89	90	94	86	88	95	95	94	89	86	83	92	94	92	90	95	100	97	91	89	84	94	81	87	87	84	83	89.3
		MIN	58	64	63	67	62	67	72	62	63	74	69	71	66	63	62	69	70	72	73	77	74	76	71	57	62	69	68	58	56	54	57	66.0
Knoxville	8	MAX	81	80	83	89	86	87	92	84	86	93	92	95	90	83	81	93	91	90	91	95	99	98	90	87	84	92	79	82	84	82	81	87.7
		MIN	60	63	68	67	65	68	72	64	66	66	68	70	70	61	63	68	68	71	75	78	73	71	72	61	64	68	70	63	59	58	62	66.8
Lamoni	7	MAX	82	84	88	93	88	88	92	86	89	93	95	96	90	86	88	91	93	94	91	91	97	98	98	94	88	93	83	89	88	87	84	90.2
		MIN	59	60	61	68	68	68	69	68	67	67	76	76	71	64	63	70	70	74	74	73	75	79	75	63	67	72	65	64	62	62	60	68.2

JULY 2017				DAILY MAXIMUM AND MINIMUM AIR TEMPERATURES FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW							
STATION	TIME	OBS		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg
Lamoni Airport	24	MAX	82	84	89	86	87	89	86	86	90	93	92	88	85	86	88	92	89	87	88	93	94	98	93	85	90	81	90	88	86	83	83	88.1	
		MIN	58	66	68	68	65	68	67	64	69	77	75	74	70	65	67	71	73	73	73	75	77	76	66	61	67	73	69	63	61	60	62	68.4	
Mount Ayr	8	MAX	78	81	83	87	83	87	89	82	85	89	91	91	87	86	84	87	91	90	89	88	93	94	93	88	88	90	78	85	85	81	83	86.6	
		MIN	55	62	63	64	64	66	68	60	63	72	73	74	70	64	65	65	68	71	71	71	76	75	70	62	66	71	67	61	60	57	68	66.5	
Osceola	8	MAX	83	84	87	93	90	90	94	85	90	94	96	96	93	85	85	94	97	94	91	96	100	100	97	93	89	96	81	88	88	87	85	91.0	
		MIN	58	66	64	65	62	67	72	61	61	74	72	72	72	62	62	72	73	73	76	76	71	60	65	70	71	60	58	55	57	66.6			
Rathbun Dam	7	MAX	81	83	83	90	87	85	90	84	87	91	93	92	89	89	84	89	94	87	91	92	97	96	96	92	86	91	82	86	84	82	82	88.2	
		MIN	59	62	63	68	64	64	70	66	65	70	72	71	69	63	62	64	68	68	70	75	78	76	73	63	63	64	70	65	61	59	60	66.6	
SOUTHEAST DIVISION																																			
Burlington Airport	24	MAX	85	89	90	90	88	90	87	86	90	91	90	89	86	80	83	90	83	91	93	95	94	90	91	80	85	88	85	82	80	81	83	87.3	
		MIN	60	55	63	69	67	65	67	63	66	67	69	72	68	64	58	71	64	66	70	77	76	70	68	64	64	72	71	64	60	57	62	66.1	
Donnellson	7	MAX	85	86	91	93	93	89	93	90	91	94	95	93	92	88	85	88	92	86	95	94	98	99	95	94	84	88	91	89	86	85	84	90.5	
		MIN	61	61	64	67	67	65	71	63	66	67	62	69	71	63	59	62	64	65	69	73	75	70	68	61	63	64	70	60	58	57	59	65.0	
Fairfield	8	MAX	81	83	86	93	87	88	92	88	86	94	95	93	91	81	80	90	92	86	93	96	100	99	91	90	82	88	88	85	82	81	82	88.5	
		MIN	61	56	63	65	64	64	72	62	66	69	68	68	71	61	58	64	63	67	69	77	71	69	71	61	61	68	69	63	56	56	64.8		
Fort Madison	24	MAX	87	91	95	90	88	94	92	88	93	91	90	91	87	82	85	95	82	95	97	95	95	93	94	79	84	81	79	79	82	88.6			
		MIN	64	61	65	70	69	64	71	65	69	67	70	73	72	65	61	73	66	68	72	78	75	69	70	63	64	70	72	64	61	59	63	67.5	
Keokuk Lock & Dam 19	6	MAX	83	85	89	91	88	81	91	91	85	92	92	91	91	84	80	86	92	83	91	93	98	97	95	94	80	87	91	82	82	79	80	87.9	
		MIN	62	62	64	66	69	68	68	64	64	68	73	72	68	62	62	67	67	67	73	73	76	70	67	65	65	70	66	64	63	63	66.8		
Keosauqua	7	MAX	82	85	89	93	92	89	93	88	88	94	96	93	93	86	82	88	95	88	95	95	99	100	97	96	84	89	89	86	84	84	90.4		
		MIN	61	58	62	64	64	65	68	61	65	71	70	70	70	63	59	59	67	67	67	74	75	71	71	60	61	65	71	62	56	55	57	64.8	
Mount Pleasant 1 SSW	7	MAX	82	85	88	92	90	89	95	87	88	94	95	92	92	89	81	89	92	85	94	96	99	99	91	90	80	86	86	86	82	80	81	88.9	
		MIN	61	54	63	67	65	62	66	60	64	65	65	67	71	60	55	59	61	61	68	72	70	70	61	61	62	69	62	57	55	55	63.2		
Oskaloosa	7	MAX	81	81	84	89	88	89	90	85	86	90	91	94	90	85	81	91	90	88	92	93	99	99	91	89	82	89	83	86	84	82	81	87.8	
		MIN	60	57	60	67	63	67	71	60	64	63	68	68	71	61	60	62	66	64	66	72	72	71	71	60	61	64	68	61	56	55	58	64.1	
Ottumwa Airport	24	MAX	85	84	92	90	89	94	89	89	94	98	95	92	88	84	92	96	89	94	96	101	98	94	84	92	86	89	86	84	83	85	90.5		
		MIN	58	57	65	66	66	64	61	60	65	75	70	74	68	62	60	70	66	69	71	76	73	72	63	61	63	73	69	64	59	55	65.6		
Sigourney	7	MAX	82	82	85	93	89	89	94	87	86	94	94	94	91	85	80	88	93	84	94	96	98	98	91	90	81	86	85	89	84	83	83	88.6	
		MIN	59	59	64	68	65	67	68	61	64	64	68	68	68	59	59	60	60	63	68	72	69	70	60	60	62	70	62	58	58	58	63.9		
Washington	7	MAX	83	83	86	90	89	90	92	88	87	93	91	91	89	87	83	88	89	83	93	93	99	99	96	91	90	80	85	85	87	83	80	81	87.9
		MIN	60	54	61	66	63	62	67	58	64	66	66	68	71	59	54	60	60	62	68	68	70	69	69	60	60	62	69	60	56	53	56	62.6	
SUPPLEMENTAL STATIONS																																			
Moline Airport	24	MAX	83	89	89	87	89	91	88	83	91	89	85	88	84	78	85	84	83	91	93	94	93	86	90	78	82	86	83	80	82	84	86.3		
		MIN	60	56	64	65	67	66	67	62	64	68	73	74	68	59	55	65	58	63	69	73	72	69	69	63	59	70	66	62	57	55	59	64.4	
Omaha Eppley AP	24	MAX	86	84	89	87	91	95	83	88	95	92	96	90	87	89	95	98	96	91	96	98	103	93	92	87	97	83	86	85	85	84	84	90.5	
		MIN	60	68	66	69	65	70	68	64	67	78	71	74	70	65	71	70	75	76	78	80	82	75	68	60	74	71	67	64	66	63	69.8		
Sioux Falls WFO AP	24	MAX	81	81	85	88	89	92	86	89	96	86	93	90	82	87	96	89	96	87	85	88	86	89	81	84	96	85	84	83	84	83	83	87.2	
		MIN	50	61	58	65	69	64	61	58	65	69	71	66	58	56	71	61	68	68	68	70	72	69	60	54	70	64	58	60	61	68	69	63.9	

JULY 2017		OBS TIME	'DAILY PRECIPITATION (INCHES) FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW												
STATION	TOTAL		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						
<b>NORTHWEST DIVISION</b>																																							
Akron	7	0.73	0.05		0.03								T																					0.55					
Cherokee	8	0.75	0.02																															0.43	0.16				
Emmetsburg	8	0.45											0.17	T																				0.07	0.04				
Estherville Airport	24	0.49											0.04																						0.08				
Estherville 4 E	7	0.79	0.31										0.05																					0.04	0.05				
Everly 3 WNW	7	0.62											0.16																						0.02				
Hawarden	7	1.98	0.08																																	0.50			
Le Mars	7	1.50	0.54																																	0.85	0.06		
Orange City	7	1.80	0.88											T	0.01																			0.40	T				
Pocahontas	8	0.41	0.03		M										0.01	0.01																	0.01	0.20					
Primghar	16	1.51											0.19																						0.25				
Remsen #2	6	1.67	0.42		0.60																														0.40	0.13			
Rock Rapids	8	1.07	0.01											T																					0.25				
Rock Valley	7	1.07	0.26																																0.21	0.05			
Sanborn	8	0.60																																		0.50			
Sheldon	7	0.62	0.02											T	T																				0.16				
Sibley	7	1.01	0.26																																0.07	0.03			
Sioux Center 2 SE	16	1.28	0.06		0.20									T																				0.35					
Sioux Rapids 4 E	22	0.64		T										0.02	T																			0.48					
Spencer Airport	24	0.62		T										T	T																				0.08				
Spencer 1 N	24	1.21												T																					0.41				
Spirit Lake 4 W	24	1.01			0.12								0.04																				0.01	0.40					
Storm Lake	8	1.52	0.01			T								0.01	T																			0.22	1.26				
<b>NORTH CENTRAL DIVISION</b>																																							
Algona 3 W	6	1.47	0.41										0.02		T																				0.52				
Allison	7	1.96											0.56																						1.05				
Britt	7	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M					
Charles City	7	9.04	0.41										1.16	0.01	T																			0.03					
Clarion	7	1.08											0.15	0.10																				0.42					
Dakota City	8	0.93	0.09	0.03										0.02	0.02																			0.64					
Forest City 2 NNE	7	2.26	T										0.56																						0.86				
Hampton	7	3.07	0.01										1.32	0.05																				0.05					
Kanawha	8	3.21		0.15	1.95								0.15																					0.44					
Lake Mills	7	2.95			0.02								0.70																					1.04					
Mason City	7	3.37											1.05																						0.51				
Mason City Airport	24	2.84		T									0.32	0.15	0.01																		0.39						
Nashua 2 SW	7	8.41	0.06										1.28		0.93																			0.15					
Northwood	7	4.62												1.14	0.01																			0.26					
Osage	7	3.96											0.58																						0.19				
Saint Ansgar	6	3.49	0.06										1.06																						0.16				
Swea City 4 W	7	1.99	0.05										0.14																						0.74	0.34			
<b>NORTHEAST DIVISION</b>																																							
Cascade	7	7.22	T	0.18	0.68								0.92	0.05	0.05																			0.67					
Cresco 1 NE	7	4.41	0.01										1.94																						0.02	0.18			
Decorah	16	2.73	0.02										0.62		T																			0.10	0.28				
Dubuque Lock & Dam 11	6	9.21	0.03										0.13	0.70	2.62	0.55																0.92	0.01	4.23	0.02				
Dubuque Airport	24	7.42		0.44									0.88	0.39	1.08		0.01															1.21	0.16	2.52	0.73				
Elkader 6 SSW	7	9.00	0.26	0.01									0.89	0.97	1.08		0.07															0.79	T	4.70		0.04	0.19		
Fayette	7	12.78	0.04										1.37	0.03	2.59																		0.82	T	7.67		0.26		
Guttenberg L & D 10	6	13.88	0.10										0.20	0.34	5.57	0.35																1.09		6.23					
Ionia 2 W	7	11.19	0.10										0.92																						0.60	0.22	9.30		0.05
Manchester #2	7	4.66	T	0.03									1.32		T	0.09																		0.38		2.79		T	0.03
New Hampton	8	9.20											0.80																						0.57	1.20	6.35		0.28
Oelwein 1 E	7	6.30											1.22		0.08					</																			

JULY 2017		OBS	'DAILY PRECIPITATION (INCHES) FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																			IOWA CLIMATE REVIEW													
			TIME	TOTAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Tripoli	7	8.30													1.69	0.03	0.30							T	0.56	0.85	4.76						0.11		
Waterloo Airport	24	2.61													0.61	T	0.19							T	T	0.34	1.47				T				
<b>WEST CENTRAL DIVISION</b>																																			
Audubon	8	2.75	0.12	0.05	0.13										0.18			1.30	0.12					0.31		0.32	0.06					0.16			
Battle Creek 3 NE	8	2.35													1.10	0.18			0.06	T							T	0.04	0.40			0.36	0.21		
Carroll	7	3.12													0.32	0.03			0.08	0.32					0.05		1.33	0.15				0.84			
Castana Exp. Farm	8	1.21	0.06		0.05													0.11	0.02	0.04				0.06		0.09	0.02			0.55	0.21				
Denison	7	4.15																0.30	0.03	0.07				0.34		1.40	0.06				0.05	1.90			
Guthrie Center	8	1.33	T	T	0.01										T			0.84	0.01					0.05		0.20	T				0.22				
Holly Springs 1 NW	7	1.65																0.06	0.09					0.07		0.20			0.45	0.78					
Holstein	7	1.69	0.04												0.05	0.20										T	0.38			0.80	0.22				
Little Sioux 2 NW	7	7.08	0.07		0.30										0.01			1.55	0.26	3.85						0.05	0.01			0.85	0.13				
Logan	8	2.69	0.71		0.46													0.68	0.28								0.34				0.19	0.03			
Mapleton #2	7	1.56		T														0.04	0.17	T							0.23	0.03			0.42	0.67			
Rockwell City	7	0.97													0.22													0.30				0.41			
Sac City	7	3.10													1.70													0.50				0.90			
Sioux City Airport	24	0.84			T	0.03												0.06	T							0.02	T	0.09	T			0.64			
<b>CENTRAL DIVISION</b>																																			
Ames Airport	24	2.82		0.02													0.02	0.16						T	1.71	0.02				0.89					
Ames 8 WSW	16	0.99	0.04																T	0.05							0.62	0.05			0.20	0.03			
Ames 5 SE	6	2.84	0.06		0.04													0.12	0.02	1.11							1.29	0.06			0.14				
Ankeny	8	1.98	0.03		0.02	T												0.52	T								1.14				0.27				
Boone	8	1.24	0.05			T												0.01	0.05						T	0.88	0.11			0.14					
Brooklyn	7	2.65													0.17			0.60	T	0.14							0.96	0.75	0.01		0.05				
Clutier	7	1.95	0.02												0.05			0.17								T	0.01	0.69	0.27		T				
Des Moines Airport	24	1.43		T		0.80												0.49	T								0.01	0.02	T	0.01		0.10			
Des Moines Camp Dodge	24	2.09		0.06														0.46	0.05								0.13	1.21	0.05	0.01		0.12			
Eldora	7	2.47	0.02	T													0.32		0.49								0.05	0.01	1.56			0.02			
Fort Dodge 5 NNW	7	1.10	0.35			0.05	T											0.15	0.05							T	0.15				0.35				
Gilman	7	2.85															0.10		0.45									2.10	0.20						
Grinnell 3 SW	7	2.83															0.02	0.66	0.64								0.43		1.07	0.01		T			
Grundy Center	8	2.77				T											1.00		0.17							T	T	1.60			T				
Iowa Falls	7	1.74	0.02		T												0.73		T								0.02	0.06	0.28	0.58		0.05			
Marshalltown	7	1.54	0.01														0.03		0.28									1.19	0.03			T			
Marshalltown Airport	24	1.25			T												0.08	0.07										0.76	0.02	0.32		T			
Montezuma 1 W	7	2.72				0.64											0.03	0.78	0.02								0.67		0.58	T					
Newton	7	1.84																0.82	0.08									0.09		0.82			0.03		
Perry	7	1.94	0.05	0.01	0.08													0.28	0.15					M		1.17	0.03			0.17					
Toledo 3 N	7	3.44	T			T									0.02	0.24		0.22		1.23					T	0.06	1.67	T	T		T				
Webster City	7	0.65	0.18												0.03			0.05										0.25				0.14			
Zearing	7	2.00																0.02		0.16									1.68	0.04			0.10		
<b>EAST CENTRAL DIVISION</b>																																			
Anamosa 3 SSW	6	6.92	T												0.35	0.01		2.06	T	0.17	0.43						0.06		1.33	1.54	0.01	0.96			
Belle Plaine	7	2.15															0.30		0.50	T	T	0.70						0.25	0.10	0.30	T				
Bellevue Lock & Dam 12	6	7.08	0.01														0.04			0.76	0.01	0.29			0.15				1.82	0.05	2.73	0.02	1.20		
Cedar Rapids Airport	24	3.08				0.01		0.03	T									0.94	T	0.11							0.08	0.03	0.95	0.14	0.40	0.39			
Cedar Rapids #1	17	5.64				0.01			0.31	T								2.00		0.74							T	0.03	1.71	0.64		0.17	0.03		
Clinton #1	18	7.57								T								0.95	0.04	0.11	0.09						0.80	0.24	0.29	3.67		1.38			
Coggon	6	6.99															0.87		2.24		0.09							0.49		1.28	2.02				
Davenport Airport	24	7.18								T									0.91		0.06								0.67	T	1.50	0.35	2.62		1.07
De Witt	8	8.56																1.20	0.16	0.03	0.89							0.10	0.12	0.55	4.44		1.07		
Iowa City	7	8.03													0.30			1.21		0.04	0.21							1.46		0.66	3.75		0.40		
Iowa City Airport	24	6.48													0.40			1.22	0.03	0.22								1.23	0.01	0.58	2.23	0.37	0.19		
Le Claire L & D 14	6	6.66	0.03														1.15	0.03	0.10									0.20	0.04	0.59	4.20	0.08	0.24		
Lowden	24	5.26								T					0.03			1.50		0.50								0.26		0.22	0.94	1.40		0.41	
Maquoketa 4 W	7	4.77													0.06	0.03		T		0.57	T	0.08							T	0.08	0.13	2.96		0.86	
Monticello	7	5.95														0.07		0.76			1.28		0.03							0.70	0.17	0.12	2.56		0.26

JULY 2017		OBS	'DAILY PRECIPITATION (INCHES) FOR THE 24 HOURS ENDING AT THE OBSERVATION TIME (OBS TIME)																								IOWA CLIMATE REVIEW													
STATION	TIME	TOTAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31							
Muscatine	6	8.72			0.20		0.70			1.60	0.01	0.59	0.32							1.92	0.01	0.82	1.73	0.02						0.80										
Muscatine 2 N	7	5.98	T							1.27		0.32	0.32								0.98		1.50	1.14							0.45									
Swisher	7	2.45			0.04			T		0.92		0.10									0.05	0.02	0.96	0.28							0.08									
Vinton	7	1.83	0.01							0.72		0.09										0.52	0.48									0.01								
Williamsburg 1 E	7	3.10			0.05		0.02			0.82	0.07	0.02	0.17							0.15		0.85	0.80								0.15									
<b>SOUTHWEST DIVISION</b>																																								
Atlantic 1 NE	7	2.21	0.12	0.02	0.10	0.09					0.08		0.05	T						0.02		T				0.03	1.70													
Bedford	7	2.40			T	T					T		0.15	1.15	0.05						0.85	0.03					0.17													
Clarinda	6	3.51	0.02									T	0.35	1.75	0.13						0.90	0.03					0.33													
Corning 1 W	7	1.60		0.07								0.12	0.54	0.08						0.66							0.13													
Glenwood	6	1.89	T	0.15								0.12	0.60	0.10													0.92													
Greenfield	8	0.54	0.03	0.08							0.02		0.06													0.20	0.15													
Hastings 4 NE	8	2.97	0.10	0.25	T							T	0.11	1.23						0.31							0.80	0.17												
Massena	7	1.07	0.13	0.16								0.03		0.10							0.39		0.03				0.04	0.19												
Oakland	7	1.50	0.32	T	0.17							0.05	T	0.13						T	0.32		T				T	0.51												
Randolph	8	2.83		0.15								0.04	1.48							T	0.40		0.05				0.53	0.18												
Red Oak	7	2.47	0.05	0.11								0.01	0.27	0.89	0.02					T	0.62	0.08					0.42													
Shenandoah	8	4.85		0.13	0.05	0.01						0.29	2.27	T						1.00							0.31	0.79												
Sidney 1 SSE	7	4.89		0.02		T						0.03	3.28							T	0.36						0.91	0.29												
Underwood	7	1.82	0.17	T	0.20							0.13	T	0.10						T		T					T	1.22												
<b>SOUTH CENTRAL DIVISION</b>																																								
Albia 3 NNE	7	0.59			0.52						0.01		0.03									0.03																		
Allerton	8	1.51		T	0.20							0.44	0.42														0.45													
Beaconsfield	7	1.37				0.10						0.12	0.77	0.22							0.10							0.06												
Centerville	7	0.82			0.01	0.02						0.20	0.42									0.09							0.08											
Chariton 1 E	7	0.30		M	0.20						0.02		0.08																											
Creston 2 SW	7	0.76										0.03	0.09	0.30	0.05					0.10	0.06							0.13												
Indianola 4 W	7	1.08		T								0.60	0.06	0.14						0.11			0.17					T												
Knoxville	8	0.61										0.41		T								0.14	0.02					0.04												
Lamoni	7	1.61				T						0.02	0.73	0.22						T	0.46	0.10	0.08							T										
Lamoni Airport	24	1.54		T	T							0.03	0.90			0.46					0.14							0.01	T											
Lorimor	8	0.24		I								0.02	T	0.12													0.10													
Mount Ayr	8	1.64			0.02		T					0.04	0.96	0.02						0.30	0.25						0.05													
Osceola	8	0.93	T	0.30	0.27							0.02	T	0.23	T												0.11													
Pella 1 S	7	0.60										0.48														0.06	0.03					0.03								
Rathbun Dam	7	3.10	0.02		0.75	0.72						0.01		0.55	0.05					0.05			0.12				0.83													
Winterset 1 S	7	1.60	0.06		0.34							0.51		0.40								0.13	0.04					0.12												
<b>SOUTHEAST DIVISION</b>																																								
Bloomfield 1 WNW	7	0.41										0.15							0.02		0.02	0.02					0.20													
Burlington Airport	24	5.51			0.54		0.49			1.11	0.46	1.58	0.12		0.07								0.24				0.90													
Donnellson	7	2.29					T	0.10			0.09	0.44	0.07	0.96	0.08								0.18	0.09			0.28	T												
Fairfield	8	1.14				0.27	T					0.42		0.10						0.17	0.05	T	0.13				T													
Fort Madison	24	5.67					T	0.45			2.58	0.34	0.39	0.27								0.73				0.79	0.12													
Keokuk Lock & Dam 19	6	1.88						0.04				0.22	0.79	0.25	0.05				0.13				0.09	0.20			0.07	0.04												
Keosauqua	7	1.21	T			0.20					0.56	0.07	0.10						T		0.10	0.05					0.13													
Mount Pleasant 1 SSW	7	5.49					0.04			0.05	0.45	0.05	0.05						0.10			2.50	0.05					2.20												
Oskaloosa	7	0.57									0.49	0.01	0.02									0.03	T					0.02												
Ottumwa Airport	24	0.64									0.27	0.10	0.02								0.02	T	0.15	T	0.10															
Ottumwa 5 W	7	0.29	0.01				T					0.19	T	0.04				</																						

JULY 2017			STATION INDEX			OWA CLIMATE			REVIEW			JULY 2017			STATION INDEX			OWA CLIMATE			REVIEW		
STATION NAME	DIV	COUNTY	COORDINATES						(FT)	ELEV	STATION NAME	DIV	COUNTY	COORDINATES						(FT)	ELEV		
			DEG	MIN	SEC	DEG	MIN	SEC						DEG	MIN	SEC							
Akron	NW	Plymouth	42	49	37	96	33	21	1125		Decorah	NE	Winneshiek	43	18	15	91	47	43	860			
Albia 3 NNE	SC	Monroe	41	3	56	92	47	12	890		Denison	WC	Crawford	42	2	11	95	19	44	1401			
Algona 3 W	NC	Kossuth	43	4	6	94	18	19	1230		Des Moines Airport	C	Polk	41	32	2	93	39	11	957			
Allerton	SC	Wayne	40	42	15	93	22	11	1110		Des Moines Camp Dodge	C	Polk	41	44	12	93	43	25	959			
Allison	NC	Butler	42	45	13	92	48	8	1048		De Witt	EC	Clinton	41	48	39	90	32	26	685			
Ames Airport	C	Story	41	59	26	93	37	8	955		Donnellson	SE	Lee	40	38	45	91	33	50	705			
Ames 8 WSW	C	Boone	42	1	15	93	46	27	1099		Dubuque L & D 11	NE	Dubuque	42	32	24	90	38	46	620			
Ames 5 SE	C	Story	41	57	7	93	33	56	870		Dubuque Airport	NE	Dubuque	42	23	52	90	42	13	1056			
Anamosa 3 SSW	EC	Jones	42	5	35	91	18	7	906		Eldora	C	Hardin	42	21	55	93	5	50	1144			
Ankeny	C	Polk	41	43	6	93	34	27	940		Elkader 6 SSW	NE	Clayton	42	46	31	91	27	13	788			
Atlantic 1 NE	SW	Cass	41	25	3	95	0	14	1148		Emmetsburg	NW	Palo Alto	43	6	9	94	41	0	1260			
Audubon	WC	Audubon	41	42	25	94	55	20	1280		Estherville Airport	NW	Emmet	43	24	4	94	44	50	1317			
Battle Creek 3 NE	WC	Ida	42	22	12	95	34	30	1380		Estherville 4 E	NW	Emmet	43	24	13	94	44	50	1320			
Beaconsfield	SC	Ringgold	40	48	25	94	2	51	1215		Everly 3 WNW	NW	Clay	43	11	0	95	22	59	1365			
Bedford	SW	Taylor	40	40	27	94	43	28	1190		Fairfield	SE	Jefferson	41	1	16	91	57	19	746			
Belle Plaine	EC	Benton	41	52	53	92	16	35	810		Fayette	NE	Fayette	42	51	1	91	48	57	1130			
Bellevue L & D 12	EC	Jackson	42	15	40	90	25	23	603		Forest City 2 NNE	NC	Winnebago	43	17	4	93	37	50	1276			
Bloomfield 1 WNW	SE	Davis	40	45	35	92	26	22	812		Fort Dodge 5 NNW	C	Webster	42	35	1	94	12	2	1140			
Boone	C	Boone	42	2	30	93	53	26	1035		Fort Madison	SE	Lee	40	37	16	91	19	34	530			
Britt	NC	Hancock	43	6	6	93	48	5	1240		Gilman	C	Marshall	41	52	41	92	46	43	1040			
Brooklyn	C	Poweshiek	41	44	22	92	26	24	910		Glenwood	SW	Mills	41	3	6	95	44	57	1060			
Burlington Airport	SE	Des Moines	40	46	51	91	7	9	692		Greenfield	SW	Adair	41	17	53	94	27	22	1330			
Carroll	WC	Carroll	42	3	54	94	51	0	1227		Grinnell 3 SW	C	Poweshiek	41	43	13	92	44	56	912			
Cascade	NE	Dubuque	42	17	56	90	59	54	870		Grundy Center	C	Grundy	42	21	53	92	45	34	1045			
Castana Exp. Farm	WC	Monona	42	3	48	95	50	11	1450		Guthrie Center	WC	Guthrie	41	40	7	94	29	50	1075			
Cedar Rapids Airport	EC	Linn	41	53	0	91	43	0	868		Guttenberg L & D 10	NE	Clayton	42	47	9	91	5	45	618			
Cedar Rapids #1	EC	Linn	42	3	0	91	35	17	810		Hampton	NC	Franklin	42	45	22	93	12	4	1230			
Centerville	SC	Appanoose	40	44	11	92	52	9	980		Harlan 1 ESE	WC	Shelby										
Chariton 1 E	SC	Lucas	41	0	59	93	16	45	940		Hastings 4 NE	SW	Mills	41	4	38	95	28	48	1050			
Charles City	NC	Floyd	43	3	37	92	40	18	993		Hawarden	NW	Sioux	43	0	11	96	29	6	1190			
Cherokee	NW	Cherokee	42	45	26	95	32	16	1180		Holly Springs 1 NW	WC	Woodbury	42	16	49	96	5	46	1100			
Clarinda	SW	Page	40	43	28	95	1	19	980		Holstein	WC	Ida	42	29	23	95	32	56	1370			
Clarion	NC	Wright	42	43	12	93	44	1	1156		Indianola 4 W	SC	Warren	41	21	56	93	38	53	942			
Clinton #1	EC	Clinton	41	47	41	90	15	50	594		Ionia 2 W	NE	Chickasaw	43	2	1	92	30	6	1019			
Clutier	C	Tama	42	4	48	92	24	18	900		Iowa City	EC	Johnson	41	36	33	91	30	18	640			
Coggon	EC	Linn	42	16	45	91	31	30	903		Iowa City Airport	EC	Johnson	41	37	58	91	32	35	668			
Corning 1 W	SW	Adams	40	59	18	94	45	32	1190		Iowa Falls	C	Hardin	42	31	8	93	15	13	1051			
Cresco 1 NE	NE	Howard	43	23	22	92	5	38	1255		Jefferson 2 NW	WC	Greene										
Creston 2 SW	SC	Union	41	2	14	94	23	39	1320		Kanawha	NC	Hancock	42	55	52	93	47	36	1185			
Dakota City	NC	Humboldt	42	43	32	94	11	43	1110		Keokuk L & D 19	SE	Lee	40	23	48	91	22	30	527			
Davenport Airport	EC	Scott	41	36	42	90	34	54	748		Keosauqua	SE	Van Buren	40	43	39	91	58	6	592			

JULY 2017			STATION INDEX			IOWA CLIMATE REVIEW			JULY 2017			STATION INDEX			IOWA CLIMATE REVIEW				
STATION NAME	DIV	COUNTY	COORDINATES			ELEV			STATION NAME	DIV	COUNTY	COORDINATES			ELEV				
			DEG	MIN	SEC	DEG	MIN	SEC				DEG	MIN	SEC	DEG	MIN	SEC		
Knoxville	SC	Marion	41	19	29	93	6	3	915	Postville	NE	Allamakee	43	5	24	91	33	29	1165
Lake Mills	NC	Winnebago	43	25	4	93	32	5	1260	Primghar	NW	O' Brien	43	5	11	95	37	45	1520
Lamoni	SC	Decatur	40	37	24	93	57	3	1128	Randolph	SW	Fremont	40	52	28	95	34	0	980
Lamoni Airport	SC	Decatur	40	37	50	93	54	3	1135	Rathbun Dam	SC	Appanoose	40	49	30	92	53	33	965
Le Claire L & D 14	EC	Scott	41	34	29	90	24	2	577	Red Oak	SW	Montgomery	41	0	13	95	14	31	1040
Le Mars	NW	Plymouth	42	46	54	96	8	45	1320	Remsen #2	NW	Plymouth	42	48	37	95	58	30	1330
Little Sioux 2 NW	WC	Harrison	41	49	35	96	3	2	1025	Rock Rapids	NW	Lyon	43	25	48	96	10	7	1347
Logan	WC	Harrison	41	38	17	95	47	18	1030	Rock Valley	NW	Sioux	43	12	16	96	18	22	1246
Lorimor	SC	Union	41	7	29	94	3	5	1230	Rockwell City	WC	Calhoun	42	23	49	94	37	45	1224
Lowden	EC	Cedar	41	51	23	90	55	48	715	Sac City	WC	Sac	42	25	10	94	58	34	1210
Manchester #2	NE	Delaware	42	28	24	91	27	6	990	Saint Ansgar	NC	Mitchell	43	22	54	92	55	24	1139
Mapleton #2	WC	Monona	42	9	43	95	47	1	1200	Salem 1 S	SE	Henry	40	50	8	91	37	20	650
Maquoketa 4 W	EC	Jackson	42	2	58	90	44	56	782	Sanborn	NW	O' Brien	43	10	45	95	39	37	1551
Marshalltown	C	Marshall	42	3	53	92	55	28	871	Sheldon	NW	O' Brien	43	10	51	95	51	10	1420
Marshalltown Airport	C	Marshall	42	6	38	92	54	58	974	Shenandoah	SW	Page	40	46	2	95	22	48	975
Mason City	NC	Cerro Gordo	43	9	47	93	11	43	1105	Sibley	NW	Osceola	43	24	17	95	44	54	1529
Mason City Airport	NC	Cerro Gordo	43	9	16	93	19	37	1225	Sidney 1 SSE	SW	Fremont	40	44	10	95	38	35	1140
Massena	SW	Cass	41	15	19	94	45	54	1325	Sigourney	SE	Keokuk	41	20	11	92	12	16	800
Moline Airport		Rock Island, IL	41	27	55	90	31	24	592	Sioux Center 2 SE	NW	Sioux	43	3	21	96	9	9	1360
Montezuma 1 W	C	Poweshiek	41	35	1	92	32	59	965	Sioux City Airport	WC	Woodbury	42	23	29	96	22	45	1095
Monticello	EC	Jones	42	14	28	91	10	24	820	Sioux Falls		Minnehaha, SD	43	34	40	96	45	14	1428
Mount Ayr	SC	Ringgold	40	42	19	94	14	34	1180	Sioux Rapids 4 E	NW	Buena Vista	42	53	35	95	3	55	1420
Mount Pleasant 1 SSW	SE	Henry	40	56	55	91	33	53	730	Spener Airport	NW	Clay	43	9	52	95	12	6	1338
Muscatine	EC	Muscatine	41	24	27	91	4	22	549	Spencer 1 N	NW	Clay	43	9	55	95	8	48	1326
Muscatine 2 N	EC	Muscatine	41	28	17	91	3	47	680	Spirit Lake 4 W	NW	Dickinson	43	25	53	95	10	56	1430
Nashua 2 SW	NC	Floyd	42	56	13	92	34	13	1059	Stanley 3 WSW	NE	Buchanan	42	38	0	91	51	48	1114
New Hampton	NE	Chickasaw	43	2	43	92	18	44	1148	Storm Lake	NW	Buena Vista	42	38	49	95	11	36	1442
Newton	C	Jasper	41	42	42	93	1	47	960	Strawberry Point	NE	Clayton	42	41	7	91	31	57	1200
Northwood	NC	Worth	43	26	19	93	13	31	1190	Swea City 4 W	NC	Kossuth	43	24	8	94	22	59	1239
Oakland	SW	Pottawattamie	41	18	16	95	23	4	1260	Swisher	EC	Johnson	41	50	59	91	40	35	790
Oelwein 1 E	NE	Fayette	42	40	48	91	52	30	1165	Toledo 3 N	C	Tama	42	2	8	92	34	50	949
Omaha Eppley Airport		Douglas, NE	41	18	37	95	53	57	982	Tripoli	NE	Bremer	42	48	45	92	15	27	960
Orange City	NW	Sioux	43	0	2	96	3	14	1380	Underwood	SW	Pottawattamie	41	23	22	95	40	52	1080
Osage	NC	Mitchell	43	16	46	92	48	38	1170	Vinton	EC	Benton	42	10	13	92	0	28	850
Osceola	SC	Clarke	41	1	10	93	45	1	1028	Wapello	SE	Louisa							
Oskaloosa	SE	Mahaska	41	19	17	92	38	48	830	Washington	SE	Washington	41	16	57	91	42	28	687
Ottumwa Airport	SE	Wapello	41	6	28	92	26	48	842	Waterloo Airport	NE	Black Hawk	42	33	16	92	24	4	868
Ottumwa 5 W	SE	Wapello	41	0	36	92	31	3	833	Webster City	C	Hamilton	42	28	7	93	47	50	1170
Pella 1 S	SC	Marion	41	22	34	92	55	13	780	Williamsburg 1 E	EC	Iowa	41	39	54	91	59	52	810
Perry	C	Dallas	41	50	22	94	6	38	965	Winterset 1 S	SC	Madison	41	18	22	94	1	6	1104
Pocahontas	NW	Pocahontas	42	43	45	94	39	41	1212	Zearing	C	Story	42	10	1	93	18	35	1116

# REFERENCE NOTES

## DEFINITIONS

STATION NAMES: Name of the city or locality. Figures and letters following the station name indicate the distance and direction from the post office or town community center.

NORMALS: The average of the meteorological element over the period from 1981 to 2010. Normals are calculated by the National Climatic Data Center and are revised once every 10 years. The precipitation and snowfall normals are strictly an average of the values recorded during the 1981-2010 period. However, temperature and degree day normals may have been adjusted to better correspond to the current (as of 2010) temperature measurement practice and thus may vary slightly from the average of the original 30-year values.

DEGREE DAYS: One heating (cooling) degree day is accumulated for each whole degree that the daily mean temperature [average of the daily maximum and minimum air temperature] is BELOW (ABOVE) 65°F. Degree days are used to provide a measure of the effect of temperature upon energy consumption for heating or cooling of homes or buildings. The greater the heating (cooling) degree day total, the greater the amount of energy needed to heat (cool) your home or building.

PRECIPITATION: Values shown in hundredths of an inch are water equivalent totals, i.e., total of liquid (rain) and melted frozen (snow, sleet, hail) precipitation. The snowfall data tables include the unmelted depth of snow and sleet in tenths of an inch. The depth of snow on the ground (SN ON GROUND) refers to the depth of all snow or ice (new or old). This 'Snow on Ground' value is the depth of snow on the ground at the time of the precipitation observation at all stations *except*: Burlington, Davenport, Des Moines, Dubuque, Mason City, Moline, Omaha, Ottumwa, Sioux City and Sioux Falls Airports where the snow depth is measured at 6 a.m. CST while the new snowfall is that for the 24 hour period ending at midnight. Daily precipitation and snowfall amounts are for the 24 hours ending at the time of observation (given in the 'OBS TIME' column). An asterisk in the daily precipitation table indicates that the rain gage was not read that day. A multi-day precipitation total is included in the amount immediately following the asterisks.

TEMPERATURE: The daily maximum (MAX) and minimum (MIN) temperatures are recorded for the 24 hours ending at the time of observation. The significance of the time of observation in interpreting these data is discussed in the preceding paragraph.

TIME OF OBSERVATION: At most locations measurements of temperature and precipitation are made only once daily at the same hour of the day. This time is referred to as the 'Time of Observation' and is given in the 'OBS TIME' column of the data tables. All observations, unless otherwise noted, are for the 24 hour period ending at the time of observation. Note that in most cases the resulting data are not for calendar day (i.e., midnight-to-midnight) periods and further that the temperature observations may be made at a different time than the precipitation observation at the same station. See the PRECIPITATION paragraph in this section for a further explanation of the significance of the time of observation. All times are expressed on a 24-hour clock (i.e., 7 a.m. = 7; 5 p.m. = 17; midnight = 24, etc.).

## SYMBOLS USED IN THE DAILY AND MONTHLY DATA TABLES.

'  ' Underlined data in the daily temperature, precipitation and snowfall tables indicates that the data in question has been estimated. Estimated data are provided when the original measurements are not available or are of suspect accuracy.

*ITALICS*. Data given in italics in the daily precipitation or snowfall tables indicate that the date on which the precipitation was reported has been changed from what was given on the original reports.

'+' A plus sign in the monthly summarized data tables indicates that the temperature or precipitation extreme given also occurred on one of more earlier dates during the month.

BLANK ENTRIES: Blank entries in the monthly summarized data table indicates that no data are available. Blank entries in the daily precipitation and snowfall data tables indicates that no precipitation was recorded. M = missing, no data recorded.

## ABBREVIATIONS:

TMP DEP NOR:	Temperature departure from the 1981-2010 normal.
EXT MAX:	Extreme maximum temperature for the month and the day on which it was measured.
EXT MIN:	Extreme minimum temperature for the month and the day on which it was measured.
MAX 90+:	Number of days with maximum temperatures which were greater than or equal to 90°F.
MAX 32-:	Number of days with maximum temperatures which were less than or equal to 32°F.
MIN 32-:	Number of days with minimum temperatures which were less than or equal to 32°F.
MIN 0°:	Number of days with minimum temperatures which were less than or equal to 0°F.
17/18 SEAS:	2017-2018 season (July 1, 2017 through the end of the published month).
NOR SEAS:	Normal number of degree days through the end of the published month.
DEP NORM:	Monthly precipitation total departure from 1981-2010 normal.
EXT DAY:	Extreme one-day precipitation amount and the day on which it occurred.
.01+:	Number of days with precipitation of 0.01 inch or greater.
.10+:	Number of days with precipitation of 0.10 inch or greater.
1.00+:	Number of days with precipitation of 1.00 inch or greater.
MAX ON GRD:	Maximum depth of accumulated snow on the ground (inches) and the day on which it was measured.
OBS TIME:	Observation Time: The time (24-hour clock) at which the daily temperature and/or precipitation measurement is made (7 = 7 a.m.; 17 = 5 p.m.; 24 = midnight).
DIV:	Climate Division: NW = northwest, NC = north central, etc.
LAT:	Latitude in degrees and minutes north.
LON:	Longitude in degrees and minutes west.
T:	Trace: < 0.005" of precipitation; < 0.05" snowfall or <0.5" snow on ground.

